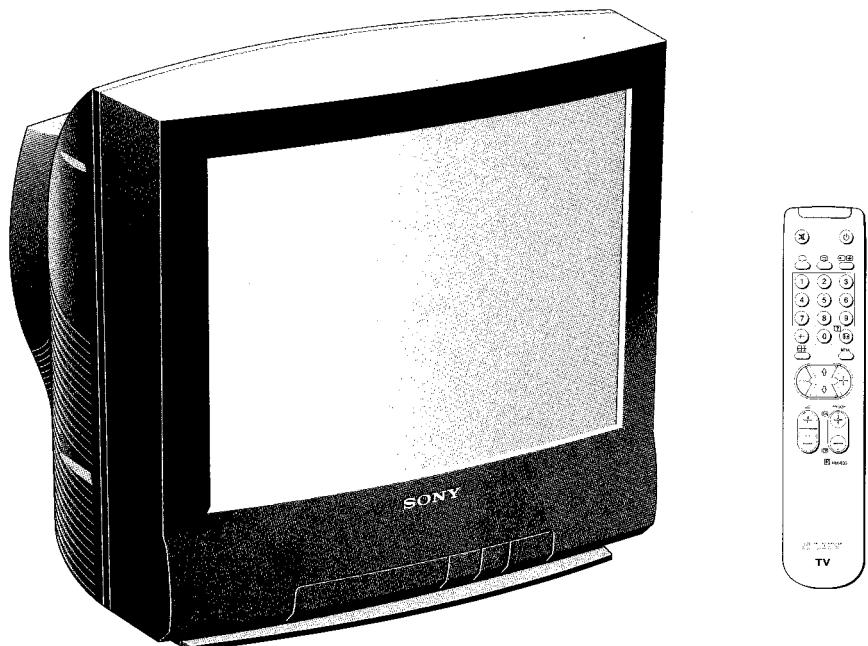


SERVICE MANUAL

BE-4A CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-21M1A	RM-836	Italian	SCC-J05E-A	KV-21M1K	RM-836	OIRT	SCC-J03J-A
KV-21T1A	RM-836	Italian	SCC-J05D-A	KV-21T1K	RM-836	OIRT	SCC-J03G-A
KV-21M1B	RM-836	French	SCC-J06G-A	KV-21M1L	RM-836	Irish	SCC-J02D-A
KV-21T1B	RM-836	French	SCC-J06F-A	KV-21T1L	RM-836	Irish	SCC-J02C-A
KV-21M1D	RM-836	AEP	SCC-J08F-A	KV-21T1R	RM-836	OIRT	SCC-J03H-A
KV-21T1D	RM-836	AEP	SCC-J08E-A	KV-21M1U	RM-836	UK	SCC-J01E-A
KV-21M1E	RM-836	Spanish	SCC-J04F-A	KV-21T1U	RM-836	UK	SCC-J01D-A
KV-21T1E	RM-836	Spanish	SCC-J04E-A				



TRINITRON® COLOR TV
SONY®

ITEM MODEL	Television System	Channel Coverage	Colour System
Italian	B/G/H	VHF: E2-E12, S1-S20 UHF: E21-E69, S21-S41 HYPER: S1-S41	PAL
French	B/G/H, L	VHF: E2-E12, F2-F10, B-Q UHF: E21-E69, F21-F69 HYPER: S1-S41	PAL, SECAM
AEP	B/G/H	VHF: E2-E12 UHF: E21-E69 HYPER: S1-S41	PAL, SECAM
Spanish	B/G/H	VHF: E2-E12 UHF: E21-E69 HYPER: S1-S41	PAL
OIRT	B/G, D/K	B/G VHF: E2-E12 UHF: E21-E69 D/K VHF: R01-R12 UHF: R21-R69 Hyper : S1-S41	PAL, SECAM
Irish UK	I	UHF: U21-U69 VHF: A-J (Irish) UHF: U21-U69 (UK)	PAL

MODEL	21M1A 21T1A	21M1B 21T1B	21M1D 21T1D	21M1E 21T1E	21M1K 21T1K 21T1R	21M1L 21T1L	21M1U 21T1U
Power Consumption	39W	58Wh	58W	58W	58W	75W	75W

SPECIFICATIONS

Picture Tube	Super Trinitron Approx. 54.5 cm (21 inches) (Approx. 51 cm picture measured diagonally)	Sound output	4W (RMS) 5W (music power)
		Dimensions	513x475x475 mm approx.
		Weight	Approx. 21.5 kg
		Supplied accessories	RM-836 Remote Commander (1) IEC designated batteries (2)
Rear/Front Terminals		Other features	TELETEXT (for KV-21T1 models)

[REAR]

- 1 21-pin Euro connector (CENELEC standard)
- Inputs for audio / video signals
- Inputs for RGB

[FRONT]

- Video (phono jack)
- Audio (phono jacks)
- Headphone jack - minijack

[RM-836]

Remote control system	Infrared control
Power requirements	3V dc (2 batteries) R6 (size AA)
Dimensions	Approx. 210x45x24 mm (w/h/d)
Weight	Approx. 90g (Not including battery)

Design and specifications are subject to change without notice.

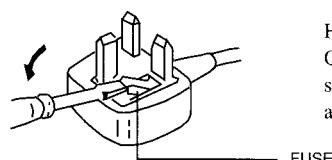
Model name Item	KV-21M1A KV-21T1A	KV-21M1B KV-21T1B	KV-21M1D KV-21T1D	KV-21M1E KV-21T1E	KV-21M1K KV-21T1K KV-21T1R	KV-21M1L KV-21T1L KV-21M1U KV-21T1U
PIP	OFF	OFF	OFF	OFF	OFF	OFF
MPIP	OFF	OFF	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON	ON	ON
Scart 2	OFF	OFF	OFF	OFF	OFF	OFF
Front in (3)	ON	ON	ON	ON	ON	ON
Scart 4	OFF	OFF	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	OFF	OFF	OFF	OFF	OFF	OFF
Norm B/G/H	ON	ON	ON	ON	ON	OFF
Norm I	OFF	OFF	OFF	OFF	OFF	ON
Norm D/K	OFF	OFF	OFF	OFF	ON	OFF
Norm L	OFF	ON	OFF	OFF	OFF	OFF
Language Preset	Italian	French	German	Spanish	OIRT	English

WARNING (KV-21M1L/21T1L/21M1U/21T1U only)

The flexible mains lead is supplied connected to a B.S. 1363 fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by ASTA to BS 1362, ie one that carries the  mark.

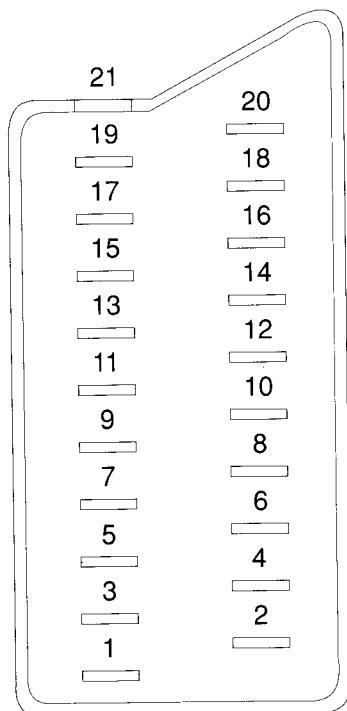
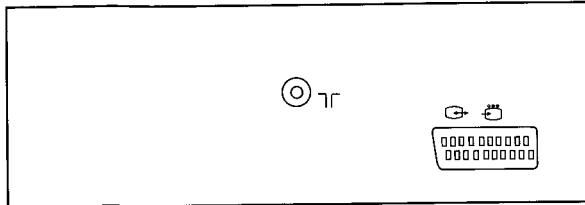
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME.
IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED.
THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.

When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



How to replace the fuse.
Open the fuse compartment with the screwdriver blade
and replace the fuse.

21 pin connector (1)



Pin No.	1	2	4	Signal	Signal Level
1	○	○	○	Audio output B (Right)	Standard level : 0.5V rms Output impedance : Less than 1k ohms*
2	○	○	○	Audio input B (Right)	Standard level : 0.5V rms Output impedance : More than 10k ohms*
3	○	○	○	Audio output A (Left)	Standard level : 0.5V rms Output impedance : Less than 1k ohm*
4	○	○	○	Ground (Audio)	
5	○	○	○	Ground (Blue)	
6	○	○	○	Audio input A (Left)	Standard level : 0.5V rms Output impedance : Less than 10k ohm*
7	○	●	●	Blue input	0.7 ± 3dB, 75 ohms, positive
8	○	○	○	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More than 10k ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (Green)	
10	○	○	○	Open	
11	○	●	●	Green	
12	○	○	○	Open	
13	○	○	○	Ground (Red)	
14	○	○	○	Ground (Blanking)	
15	○	—	—	Red input	0.7 ± 3dB, 75 ohms, positive
	—	○	○	(S signal) chroma input	0.7 ± 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75 ohms
17	○	○	○	Ground (Video output)	
18	○	○	○	Ground (Video input)	
19	○	○	○	Video output	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
20	○	—	—	Video input	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
	—	○	○	Video input Y (S signal)	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected ● Not Connected (Open) * at 20Hz - 20kHz

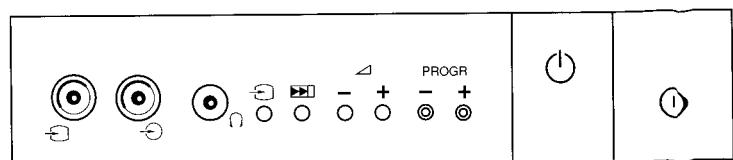


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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

WARNING !!

**AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.**

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ÊTRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDE À L'ALIMENTATION SECTEUR.

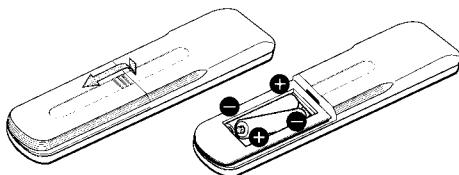
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QU'PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDICUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

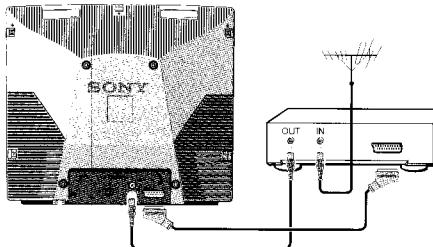
The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Step 1**Inserting the Batteries into the Remote Commander****Step 2****Connecting the Aerial**

If you connect a VCR, skip to step 3.

③

Connect an external aerial to the socket **T**.



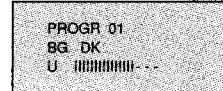
- It is recommended to tune in the VCR signal to programme number "0". For details, see "Presetting Channels Manually" on page 12.

Step 4**Presetting Channels Automatically**

TV searches for all available channels. If manual tuning is preferred see Menu option - Presetting Channels Manually.

- 1 Plug into mains.
Press power switch **① X** on TV set.

- 2 Press and hold **▶ T** on TV set for 2 seconds.
Auto tuning starts and screen shows.



Note • When Auto tuning stops the programme on position 1 is seen.

TV Operation

This section explains functions used whilst watching TV. Most operations are carried out using the Remote Commander.

To	Press
Switch on	① X on TV
Switch off temporarily	② K <i>TV is now in standby mode, ② indicator W on TV lights.</i>
Switch on again	③ C , PROGR +/- P V or any number button D
Switch off completely	④ X on TV <i>To save energy we recommend switching off completely when TV is not in use.</i>
Select programmes	PROGR +/- P V or number buttons D <i>For double digit numbers press -/- E then the number e.g. For 23, press -/- E then 2 and 3.</i>
Display the programme number	⑤ V <i>Press again to make programme number disappear.</i>
Adjust the volume	△+/- U
Mute the sound	※ A <i>Press again to restore sound.</i>
View video input	⑥ S <i>Press again to return to TV programme.</i>
View programmes in 16:9 mode	⑦ F <i>Press again to return to 4:3 mode.</i>
Note • ⑦ F is to be used to optimise the viewing of 16:9 signals, which will be available in the future.	

Viewing Teletext

Teletext is an information service broadcast by TV stations.

1 Select the channel which carries the teletext service you wish to receive.

2 Press **B** to switch on teletext.

3 Input three digits for the page number using the programme number buttons **D** or PROGR +/- **P V**.

4 Press **C** to switch off teletext.

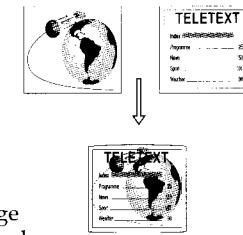
Note • Teletext errors may occur if the broadcasting signals are weak.

Using Other Teletext Functions

Superimposing teletext on the TV

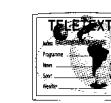
Press **B** once in teletext mode or twice in TV mode to superimpose teletext on the TV screen.

Press **B** again to cancel superimposing.



Freezing a teletext subpage

Press **L** (HOLD) to freeze the subpage. Freezing the page prevents the information that is displayed from being updated. Press **L** to cancel HOLD and allow update to continue.



Revealing concealed information (eg: answers to a quiz)

Press **M** to reveal information.

Press again to conceal the information.

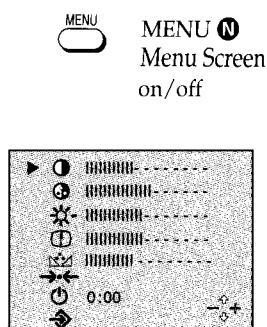
Using colour buttons to access pages

When the colour coded menu appears at the bottom of a page, press the colour button (red, green, blue or yellow) **H G I O** to access the corresponding page.

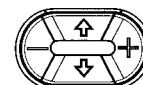
Note • A programme status message in a blue box may appear when you change programmes (depends on broadcasters).

MENU Operation

Use buttons on Remote Commander to control Menu screen.



Green G
scroll up



Yellow O
increase/confirm(OK)

Blue I
scroll down

Adjusting the Picture

- 1 Press MENU N.
- 2 Press green G or blue I button to select the item you wish to change.

Symbol	Item	-	Effect	+
●	Picture	Less	More	
◎	Colour	Less	More	
○	Brightness	Darker	Brighter	
□	Sharpness	Softer	Sharper	
↖↖	Hue	Reddish	Greenish	

Note • Hue is available only when NTSC signal is input.

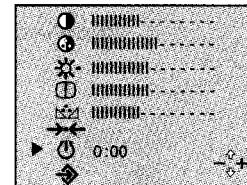
- 3 Press red H or yellow O button to change levels.
- 4 Press MENU N to return to normal TV screen.

Note • To reset to factory preset picture levels, press green G or blue I button to select ↪↖ and press yellow (OK) O button.

Using the Sleep Timer

The TV may be set to switch to the standby mode automatically after a length of time chosen by you. You may set the time in 30 minutes steps up to 4 hours.

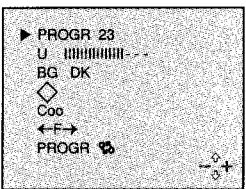
- 1 Press MENU N.
- 2 Press green G or blue I button to select ⏺.



- 3 Press red H or yellow O button to set time delay.
0.00 (OFF) 0.30 1.00 1.30 4.00
- 4 Press MENU N to return to normal TV screen.
When watching TV, press ⏰ to display time remaining.

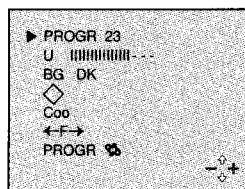
Presetting Channels Manually

Up to 60 programme positions are available for presetting channels.

- 1 Press MENU **N**.
- 2 Press green **G** or blue **I** button to select \Rightarrow and press yellow (OK) **O** button.
- 3 Select programme number using PROGR +/- **PV** or the number buttons **D**.

- 4 Press green **G** or blue **I** button to select TV system (BG or DK) if necessary and press red **H** or yellow **O** button to change TV system.
- 5 Press green **G** or blue **I** button to select tuning bar (|||||...) and press red **H** or yellow **O** button to start channel search. When a channel is found the tuning bar stops moving and you see the picture.
- 6 If you want to store, press green **G** or blue **I** button to select \diamond and press yellow (OK) **O** button. If you do not want to store, press red **H** or yellow **O** button to continue search.
- 7 Repeat steps 3 to 6 for all other channels.
- 8 Press MENU **N** to return to normal TV screen.

Skipping Programme Positions

You can skip unused programme positions when selecting channels with the PROGR +/- **PV** buttons. You can still select them, however, using the number buttons **D**.

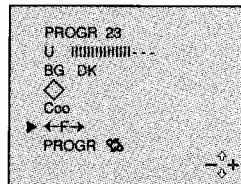
- 1 Press MENU **N**.
- 2 Press green **G** or blue **I** button to select \Rightarrow and press yellow **O** button.
- 3 Select programme number you want to skip using PROGR +/- **PV** button or number buttons **D**.

- 4 Press green **G** or blue **I** button to select Coo and press yellow (OK) **O** button.
- 5 Press green **G** or blue **I** button to select \diamond and press yellow (OK) **O** button to store.
- 6 Repeat steps 3 to 5 for other unused programme positions.
- 7 Press MENU **N** to return to normal TV screen.

Note • To restore a skipped programme number, refer to 'Presetting Channels Manually'.

Fine-Tuning Channels

You can fine tune a stored channel if necessary.

- 1 Select the channel you wish to fine tune.
- 2 Press MENU **N**.
- 3 Press green **G** or blue **I** button to select \diamond and press yellow (OK) **O** button.
- 4 Press green **G** or blue **I** button to select $\leftarrow F \rightarrow$ and use red **H** or yellow **O** button to adjust tuning.

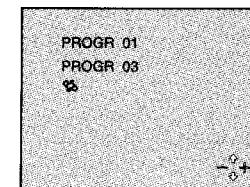


- 5 Press green **G** or blue **I** button to select \diamond and press yellow (OK) **O** button to store.
- 6 Press MENU **N** to return to normal TV screen.

Exchanging Programme Positions

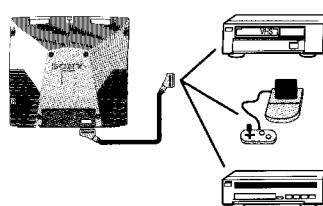
After tuning you may wish to rearrange the programme positions.

- 1 Press MENU **N**.
- 2 Press green **G** or blue **I** button to select \diamond and press yellow (OK) **O** button.
- 3 Press green **G** or blue **I** button to select PROGR \square and press yellow (OK) **O** button.
- 4 Press red **H** or yellow **O** button to select the first programme position.
- 5 Press the blue **I** button.
- 6 Press the red **H** or yellow **O** button to select the second programme position.
- 7 Press blue **I** button to select \square and press yellow (OK) **O** button to exchange.
- 8 Repeat steps 4 to 7 for other programme positions.
- 9 Press MENU **N** to return to normal TV screen.



Using the Connectors

Your TV has one 21-pin connector **Z** on the rear of the set and two connectors (phono jacks : **□** video, **○** audio) **Q** on the front of the set. You can connect optional audio or video equipment to these connectors, such as a VCR, video games or a video disc player.



1 Press **□ L S** to view the video input signal.

2 Press **□ L S** or **□ C** to return to normal TV screen.

Note • To avoid picture distortion, do not connect equipment to the 21-pin connector and the front connectors at the same time.

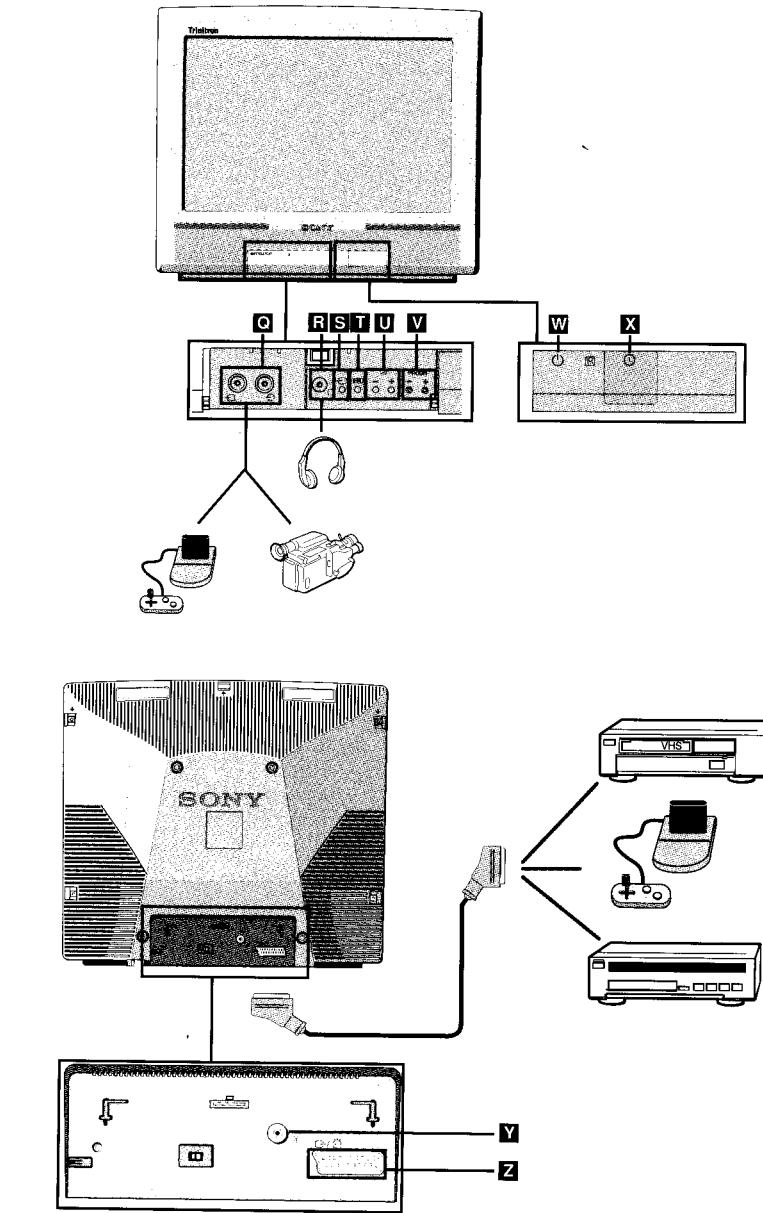
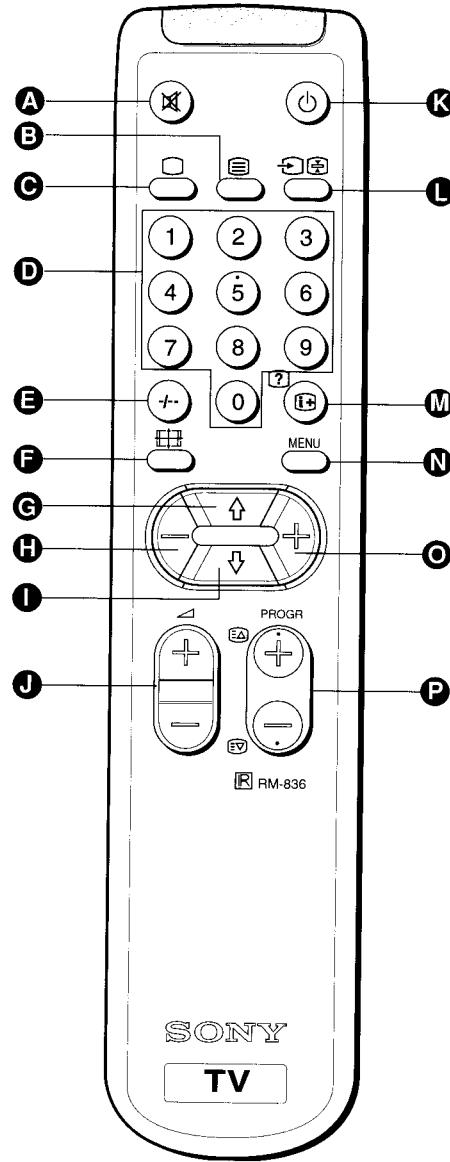
Connecting Headphones

Plug in the headphones to the **Ω R** socket on the front of the TV set to mute the sound from the speaker.

Troubleshooting

Here are some simple solutions to the problems which affect the picture and sound.

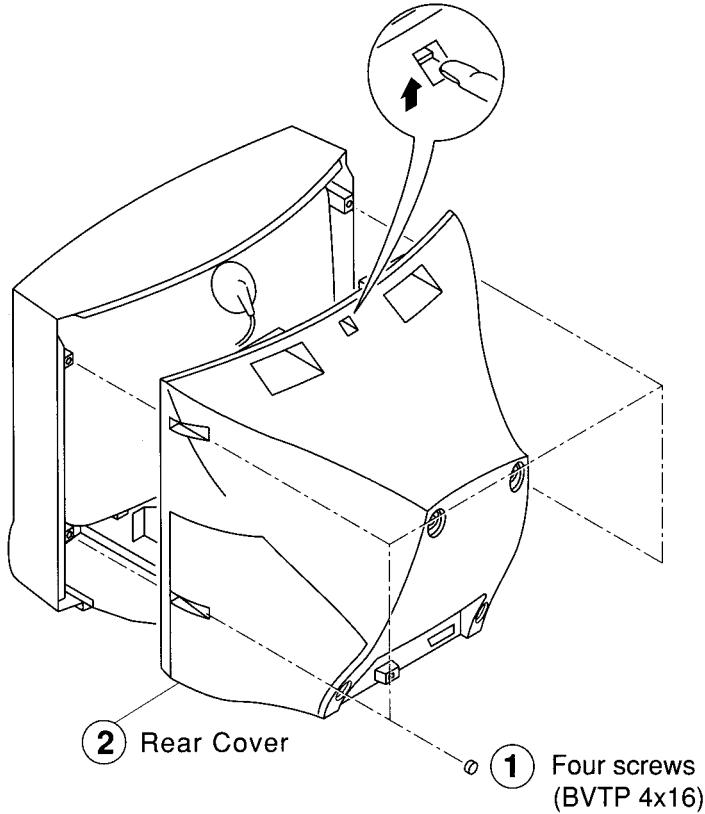
Problem	Solution
No picture, screen is dark, no sound	<ul style="list-style-type: none">• Plug the TV in.• Press □ X on the TV.• Press □ C or the programme number D on the remote commander if □ indicator W is on.• Check the aerial connection.• Check that the video source is on.• Turn the TV off for 3 or 4 seconds and then turn it on again using □ X.
Poor or no picture (screen is dark, sound is good)	<ul style="list-style-type: none">• Press MENU N and adjust brightness picture and colour levels.
Good picture, no sound	<ul style="list-style-type: none">• Adjust the volume △ +/- J U.• Disconnect any headphones.• Press ※ A if ※ is displayed on the screen.• Press MENU N and select appropriate TV system.
No colour on colour programmes	<ul style="list-style-type: none">• Press MENU N and adjust colour balance.• Press MENU N and reset to factory settings.
Distorted picture when you change programmes or select teletext	<ul style="list-style-type: none">• Turn off the equipment connected to the 21-pin connector Z when this equipment is not in use.
Remote commander does not function	<ul style="list-style-type: none">• Replace the batteries.
• If you continue to have these problems, have your TV serviced by qualified personnel.	
• NEVER open the casing yourself.	



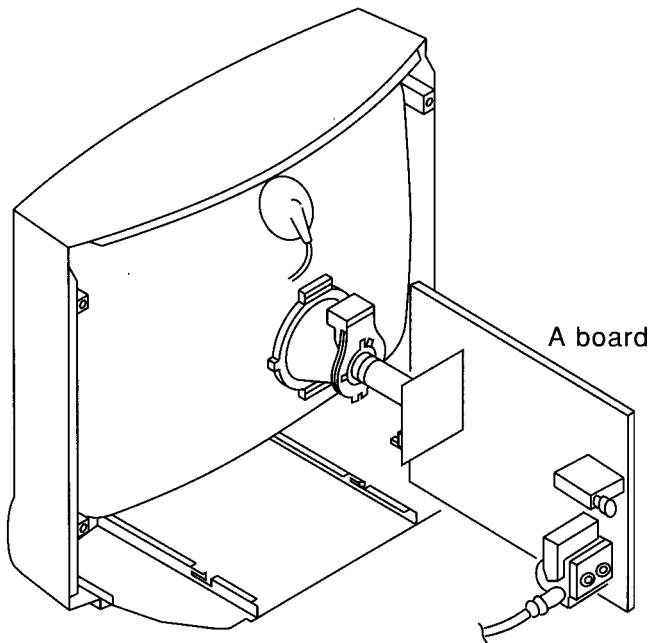
SECTION 2

DISASSEMBLY

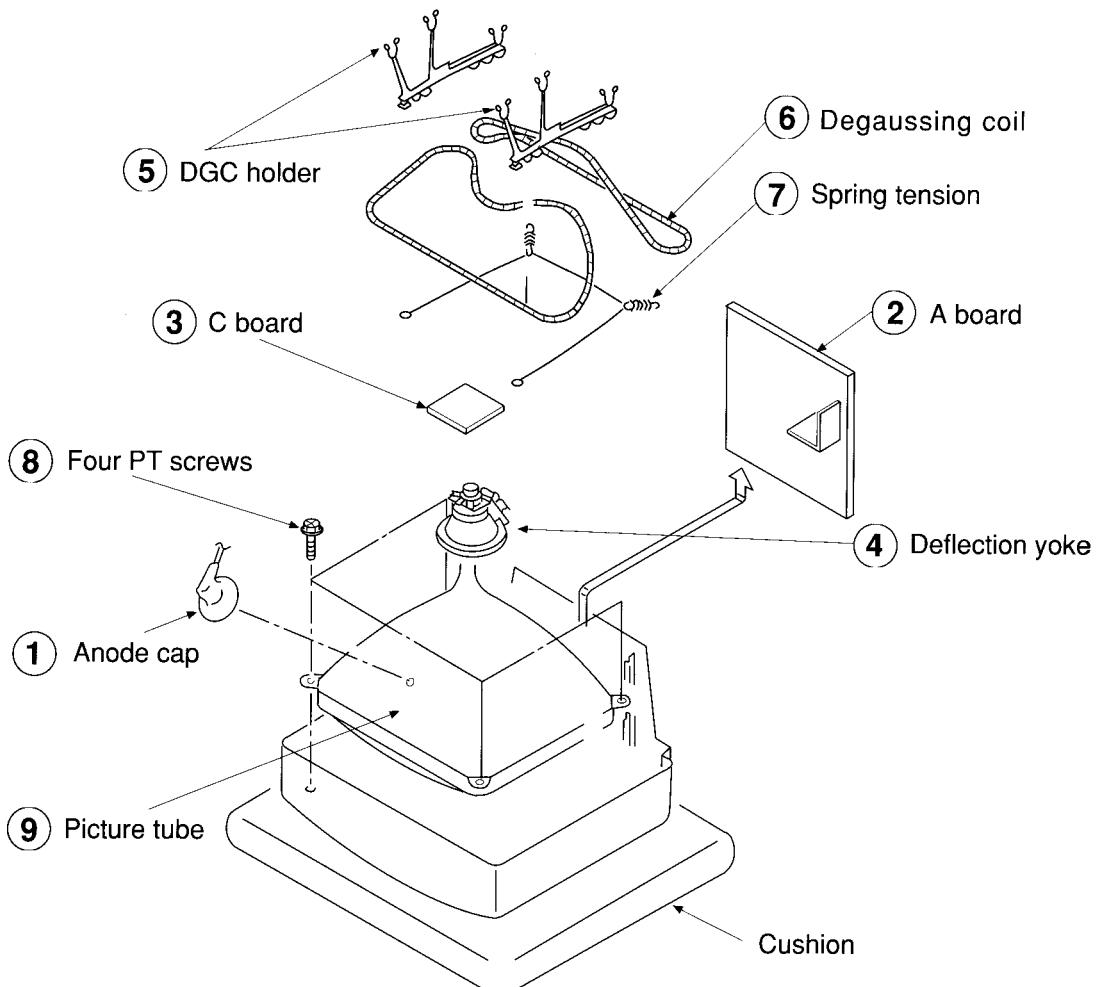
2-1. REAR COVER REMOVAL



2-2. SERVICE POSITION



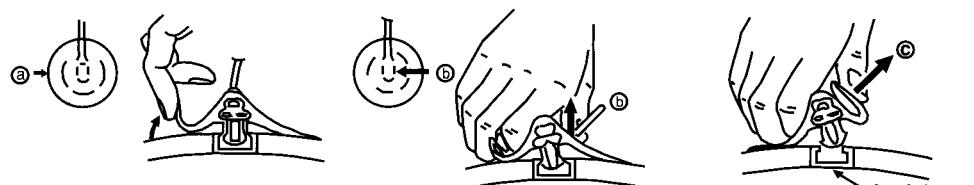
2-3. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

* REMOVING PROCEDURES.

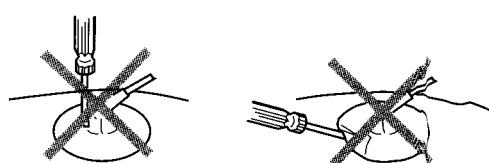


- ① Turn up one side of the rubber cap in the direction indicated by the arrow ④
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⑤
- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⑥

• HOW TO HANDLE AN ANODE-CAP

- ① Don't damage the surface of anode-cap with sharp shaped material !
- ② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built into the rubber.
- ③ Don't turn the foot of rubber over hardly !

The shatter-hook terminal will stick out or damage the rubber.



SECTION 3

SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with the rated power supply voltage, unless otherwise noted.

The Contrast and Brightness controls should be set as follows unless otherwise noted:

CONTRAST control 80%
(or Normal by commander)
BRIGHTNESS control 50%

Perform the adjustments in the following order:

- Beam Landing
- Convergence
- Screen (G2), Drive, White Balance, Sub Colour and Sub Brightness.
- Focus

Note: Test Equipment Required.

- Colour bar/Pattern Generator
- Degausser
- DC Power Supply
- Digital multimeter
- Oscilloscope

Preparation:

- In order to reduce the influence of external magnetic forces on the picture tube, face the TV set in an easterly or westerly direction.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser.

3-1. BEAM LANDING

Demagnetize with a degausser.

- Input an all white raster signal from the pattern generator.
CONTRAST } normal
BRIGHTNESS }
- Switch the raster signal of the pattern generator to Red.
- Move the deflection yoke backward, and adjust with the purity control so that Red is at the centre and the Blue and Green are evenly spaced at the sides. see (Fig. 3-1 - 3-3)
- Move the deflection yoke forward, and adjust so that the entire screen becomes Red. (Fig. 3-1)
- Switch the raster signal to Blue and then Green to confirm the condition.
- When the position of the deflection yoke has been determined, tighten it with the deflection yoke mounting screw.
- When the landing at the corners is not correct, adjust by using disk magnets. (Fig. 3-4)

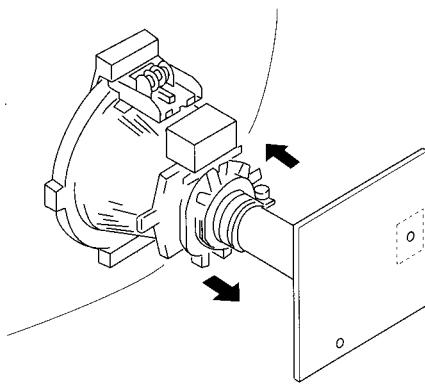


Fig. 3-1

Fig. 3-2

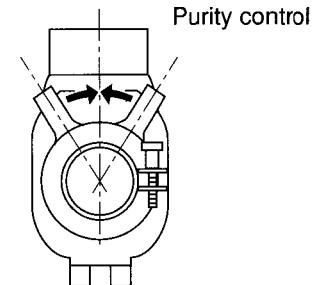


Fig. 3-3

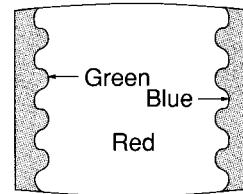
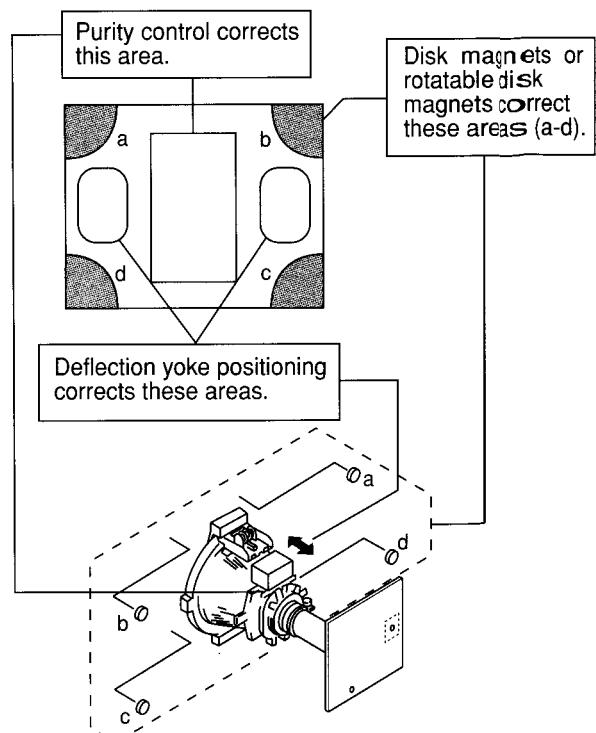


Fig. 3-4

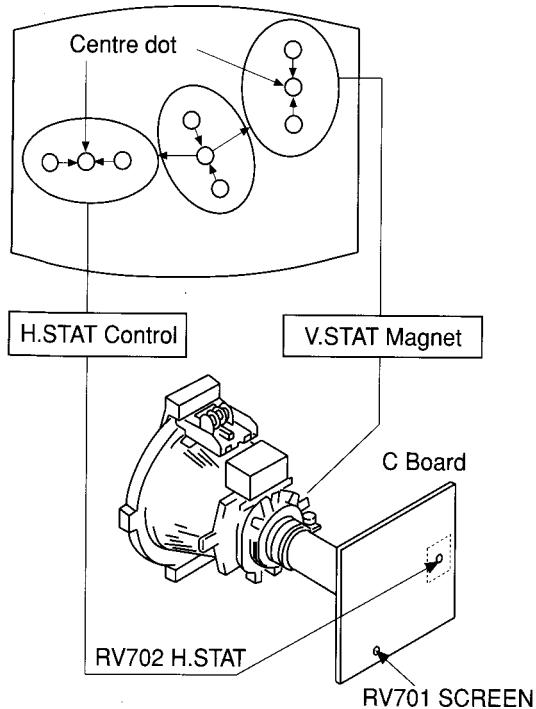


3-2. CONVERGENCE

Preparation:

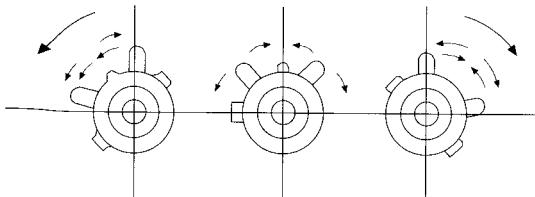
- Before starting, perform FOCUS, H.SIZE, and V.SIZE adjustments.
- Set the BRIGHTNESS control to minimum.
- Input a dot pattern from the pattern generator.

(1) Horizontal and Vertical Static Convergence

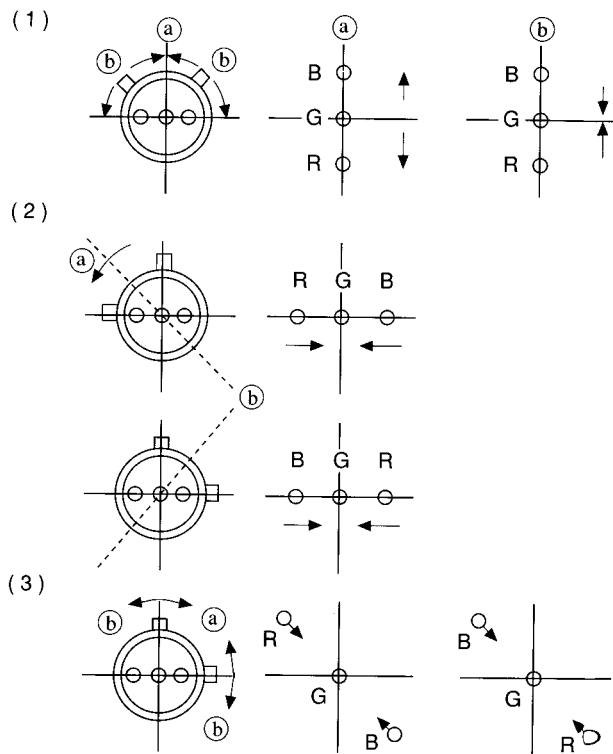


1. Adjust the H.STAT control to converge the Red, Green and Blue dots at the centre of the screen. (Horizontal movement)
2. Adjust the V.STAT magnet to converge the Red, Green and Blue dots at the centre of the screen. (Vertical movement)

• If the horizontal dots cannot coincide with variable range of the H.STAT convergence, adjust together with the V.STAT convergence while tracking.
(Adjust the convergence by tilting the V.STAT convergence or by opening or closing the V.STAT convergence.)



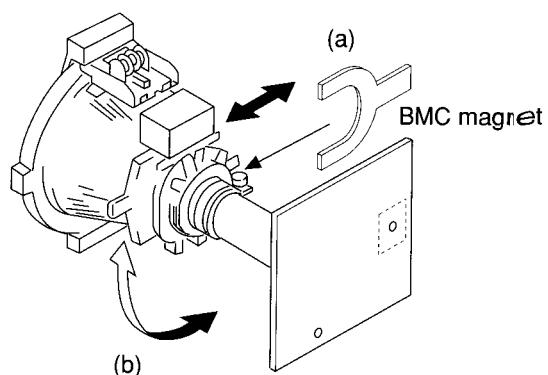
3. When the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the Red, Green and Blue dots move as shown below.



If the Red and Blue dots do not converge with the Green dots, perform the following steps.

1. Move the BMC magnet (a) to correct for insufficient H.static convergence.
2. Rotate the BMC magnet (b) to correct for insufficient V.static convergence.

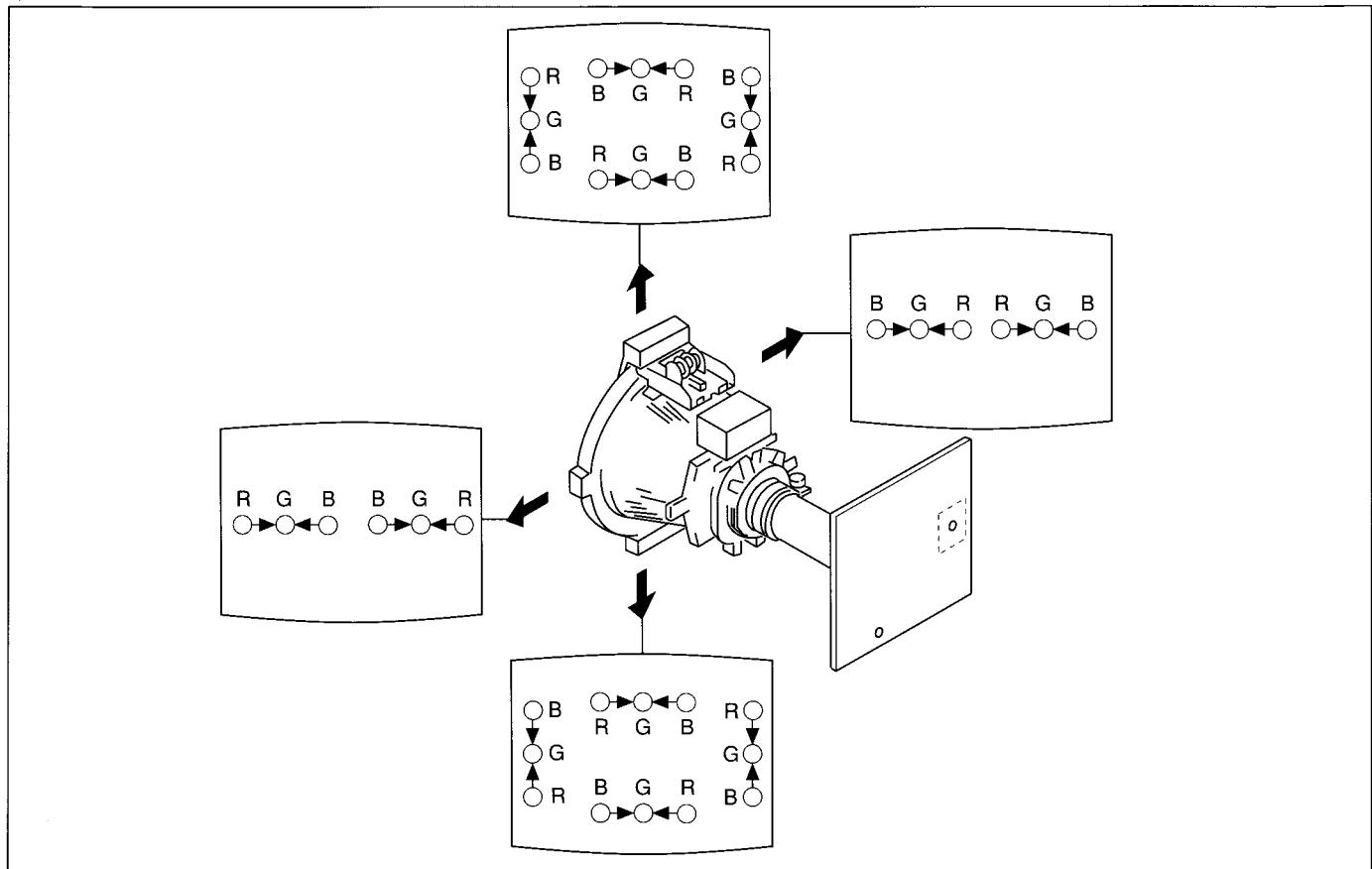
In either case, repeat the Beam Landing Adjustment.



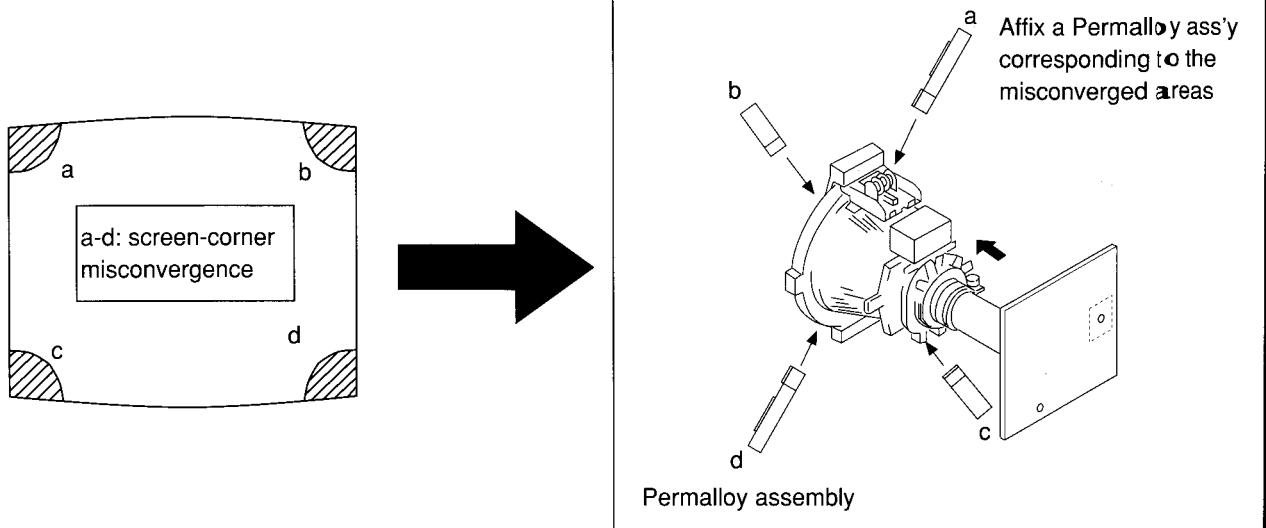
(2) Dynamic Convergence Adjustment

Preparation:

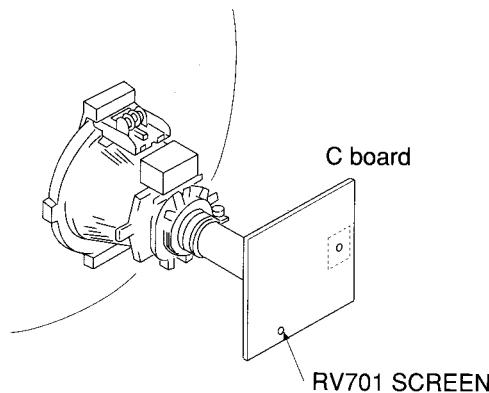
- Before starting, perform the Horizontal and Vertical static convergence adjustment.
- 1. Slightly loosen the deflection yoke screw.
- 2. Remove the deflection yoke spacers.
- 3. Move the deflection yoke for best convergence as shown below.
- 4. Tighten the deflection yoke screw.
- 5. Install the deflection yoke spacers.



(3) Screen-corner Convergence.



3-3. SCREEN (G2), DRIVE, WHITE BALANCE, SUB COLOUR and SUB BRIGHTNESS.

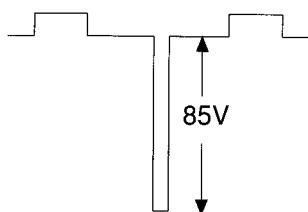


Screen (G2) setting

1. Input a 0 IRE (Black Level) signal from the pattern generator.
2. Enter into the Service Mode "Test""Test" and 38.
3. Adjust RV701 until the Down arrow is displayed.
4. Adjust RV701 until the Down arrow just disappears.
5. Press the TV Button on the Remote Commander to store the data.

Drive Level

1. Input a Video signal containing a small area of 100% white on a black background.
2. Connect an oscilloscope to Pin (10) of J701 (R OUT) on the C Board.
3. Set the Picture to maximum using "Test""Test" and 01.
4. Enter into the Service mode (Adjust Menu).
5. Using the Blue and Green buttons select "RED HWB".
6. Using the Red and Yellow buttons on the Remote Commander adjust until the oscilloscope waveform has an amplitude of 85V.

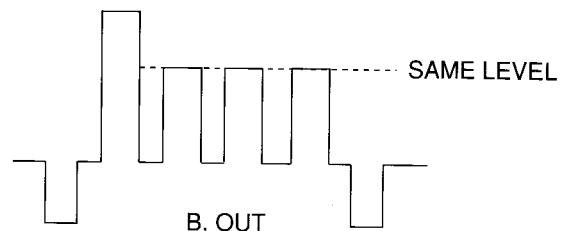


White Balance Adjustment

1. Input an all white pattern from the pattern generator.
2. Adjust the Colour and Brightness controls to the standard level.
3. Enter into the Service Mode.
4. Adjust the Green HWB and Blue HWB so that the White Balance becomes optimum.

Sub Colour Adjustment

1. Input a PAL colour bar pattern from the pattern generator.
2. Connect an oscilloscope to Pin (8) of J701 (B OUT) on the C Board.
3. Enter into the Service Mode "Test""Test" and 22.
4. Using the Red and Yellow buttons on the Remote Commander adjust until the oscilloscope waveform becomes as follows :



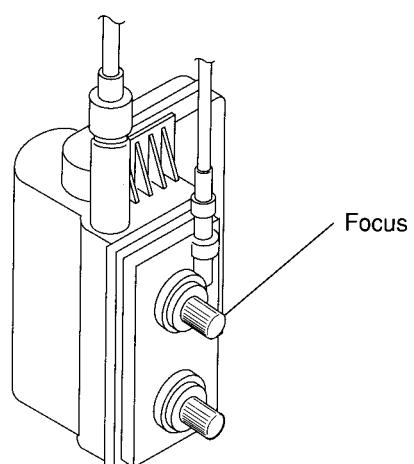
Note : If the TV is able to receive PAL and SECAM transmissions, repeat the above procedure using a Secam colour bar signal.

Sub Brightness Adjustment

1. Input a Philips pattern from the pattern generator.
2. Enter into the Service Mode "Test""Test" and 23.
3. Using the Red and Yellow buttons on the Remote Commander adjust until the 0 IRE of the grey scale and the cut off are only slightly visible on the screen.

3-4. FOCUS

1. Receive a television broadcast signal.
2. Normalize the picture setting.
3. Adjust the focus control on the flyback transformer for the best focus at the centre of the screen.
Bring only the centre area of the screen into focus, the magenta-ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



SECTION 4

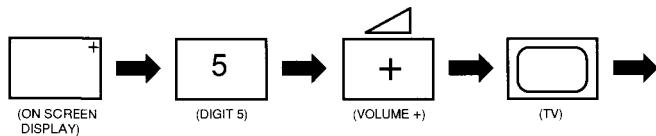
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied Remote Control Commander RM-836.

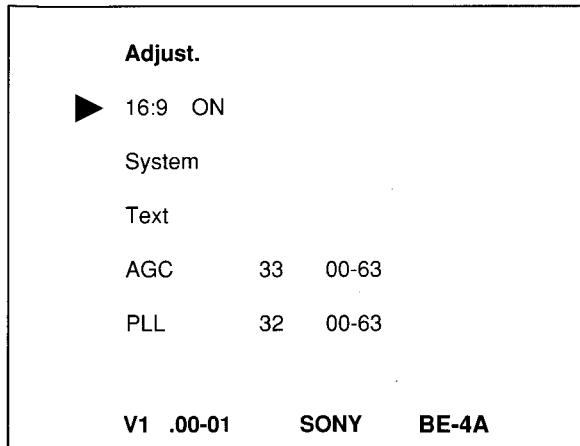
HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power of the set and enter into stand-by mode.
2. Press the following sequence of buttons on the Remote Control Commander.



"TT--" will appear in the top right corner of the screen
Other status information will also be displayed.

3. Press the MENU button on the Remote Commander to obtain the menu on the screen.



Software version

4. Press the Blue (Next) or Green (previous) buttons to select the adjustment item from the table.
5. Press the Yellow (+) or Red (-) buttons to change the data as required.
6. Turn off the power to quit the service mode when adjustments are completed.

Range of adjustments available from the on screen menu system.

Adjustment	Set	Range
16:9 Off	Select	ON/OFF
System	Select	BG-L, BG-DK UK, Eire, BG
Text	Select	EAST/WEST
AGC	Adj.	00 - 63
PLL	Adj.	00 - 63
B&W Delay	Adj.	00 - 63
Ver Size	Adj.	00 - 63
Ver, Breath	00	00 - 63
Par, Ampl	00	00 - 63
Par, Tilt	32	00 - 63
V, Linear	Adj.	00 - 63
Corn, corr	00	00 - 63
V, Cen or EW	Adj.	00 - 63
V, Position	42	00 - 63
H, Centre	Adj.	00 - 63
Blue HWB	Adj.	00 - 63
Green HWB	Adj.	00 - 63
Red HWB	Adj.	00 - 63

4-2. TEST MODE 2:

TT -- Mode is available by pressing the Test button twice, O.S.D 'TT --' appears. The functions described below are available by pressing two digits. To release the 'TT --' mode, press 0 twice, press 'TEST' , press 'TV' or switch the TV into Stand-by mode.

00	Switch 'TT--' Mode off.
01	Set picture level to maximum.
02	Set picture level to minimum.
03	Set volume to 35%.
04	Set volume to 50%.
05	Set volume to 65%.
06	Set volume to 80%.
07	Ageing condition (picture max., brightness max.).
08	Shipping condition (Analog values are RESET to factory setting, Prog 1 is selected, TT--mode switched off, Vol = 35%).
09	Dummy.
10	No function.
11	Dummy
12	Text Picture Level Offset (Enable/Disable)
13	Select Odd / Even field for Non-interlaced teletext.
14	Select Interlaced / Non-interlaced teletext display.
15	Read factory setting from ROM to NVM - Reads Volume, Brightness, Picture, Hue, Sharpness and Colour values from ROM to the actual used values (Last Power Memory).
16	No function
17	Enable / Disable Sharpness Operation.
18	Enable / Disable Teletext Operation.
19	Enable / Disable NTSC Operation.
20	No function.
21	Sub Picture.
22	Sub Colour (Pal / Secam Different Stores)
23	Sub Brightness.
24	Destination System BG/L.

25	Destination Systems BG/L.
26	Destination Systems I.
27	Destination System I/I'.
28	Destination BG only.
29	Dummy.
30	No function.
31-32	Dummy.
33	Auto AGC Adjust.
34	Auto PLL Adjust.
35-37	Dummy.
38	Enter G2 adjustment mode.
39	Dummy.
40	No function.
41	Re-initialise NVM.
42	Dummy.
43	Re-initialise Geometry settings.
44-47	Dummy
48	Set NVM testbyte to 44h in NVM.
49	Erase NVM testbyte
50	No function.

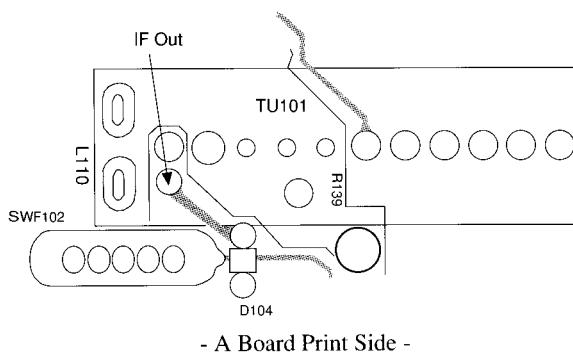
Note : For Test Modes 41 - 50, it is necessary to ensure that the TV is set to Prog 59.

IF ADJUSTMENT (AUTOMATIC)

1. Input a 38.9 MHz 100dB μ CW signal at the IF Out injection point.
2. Enter into service mode and press 34.
3. Connect a digital voltmeter to IC101 pin 23.
4. Check AFT 2.5V \pm 0.3V dc.
5. Press '00' on the Remote Commander.

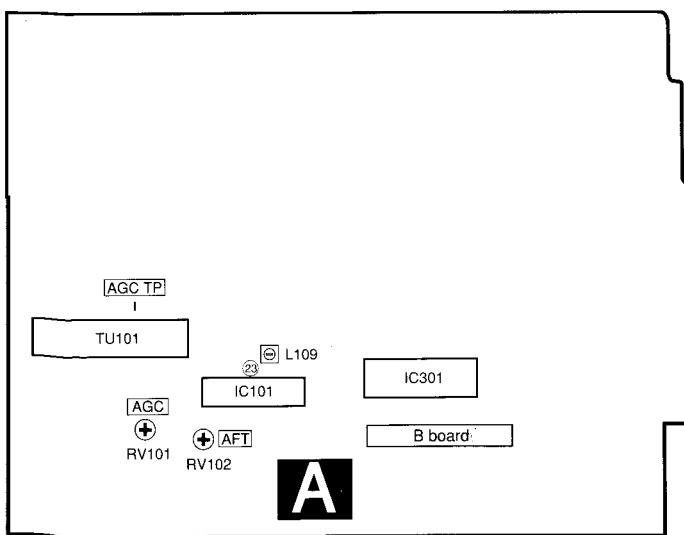
SYSTEM L ADJUSTMENT (French Models)

1. Input a 33.9MHz 100dB μ CW signal at the IF Out injection point.
2. From the On Screen Menu set System to L band 1.
3. Connect a digital voltmeter to IC101 pin 23.
4. Adjust RV102 AFT for 2.5V \pm 0.3V dc.



AGC ADJUSTMENT

1. Receive an off-air signal.
2. Enter into the Service adjust menu and select AGC.
3. Adjust the data using the Red and Yellow buttons on the Remote Commander so that there is no snow or cross-modulation visible on the screen.
4. Change the receiving off-air channel, and confirm the above status.



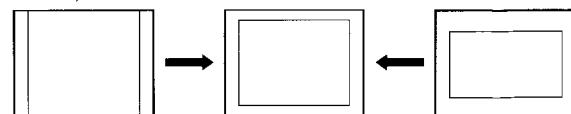
DEFLECTION SYSTEM ADJUSTMENT

1. Enter into the service mode.
2. Using the Blue or Green buttons select the Adjust item.
3. Press the Yellow button to enter the adjustment submenu.
4. Select and adjust each item in order to obtain the optimum image.

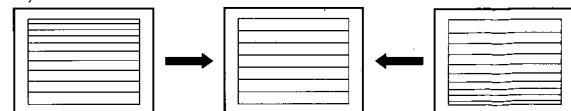
See Note on page 22

Adjustment	Set	Range
VERT, AMPL	Adj.	00 - 63
VER, BREATH	00	00 - 63
PAR, AMPL	00	00 - 63
PAR, TILT	32	00 - 63
V, LINEAR	Adj.	00 - 63
CORN, CORR	Adj.	00 - 63
V, CENTRE	Adj.	00 - 63
V, POSITION	42	00 - 63
H, CENTRE	Adj.	00 - 63

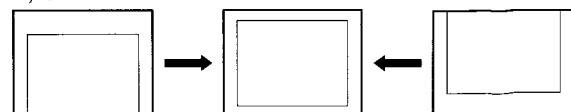
VERT, AMPL



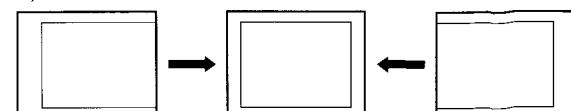
V, LINEAR



V, CENTRE



H, CENTRE



Fit the link as required to obtain the correct horizontal picture size.

4-3. BE-4A SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-4A chassis is triggered in 1 of 2 ways :- 1: Bus busy or 2: Device failure to respond to I²C. In the event of one of these situations arising the software will first try to release the Bus if busy (Failure to do so will report with a continuous flashing LED) and then communicate with each relevant device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED by a Series of flashes which must be counted (See Table 1). Non fatal errors are reported with this method.

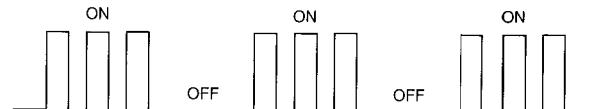
If a fatal error is found, the set will simply stay in whichever state it was when the error occurred, but if a non fatal error occurs the set will try to continue to operate.

Table 1

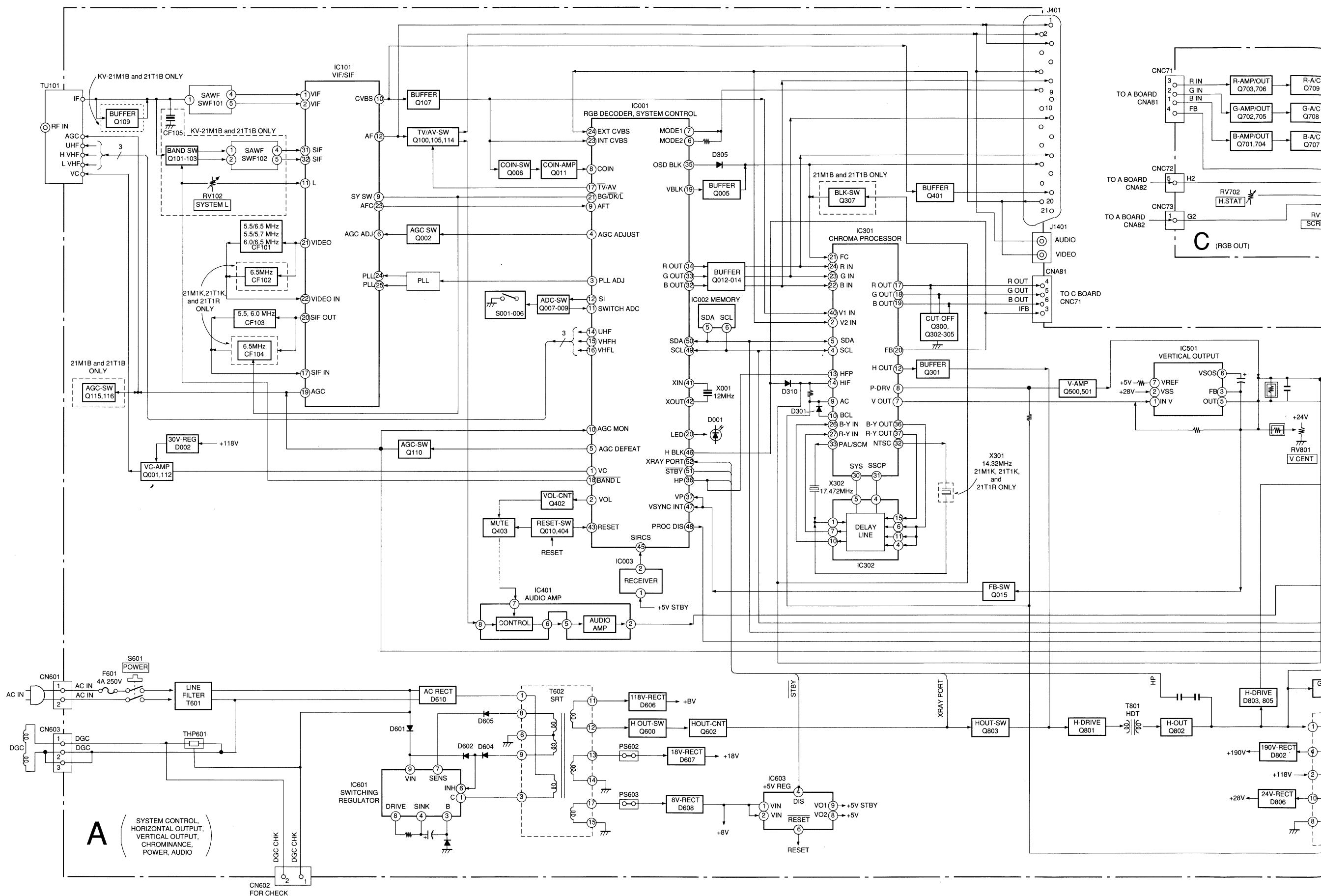
No of Flashes	Meaning
2	IC301 not acknowledging I ² C transmission, NVM OK.
3	IC301 FAULT (Not OK) - flags
4	IC301 - No H Flyback
5	IC301 - Stack Overflow.
6	Oversupply / Overcurrent Protection (Pin 52) high.
7	IC002 not acknowledging I ² C transmission, IC301 OK.
8	IC002 and IC301 - No I ² C acknowledgment.
9	General I ² C Error (SDA or SCL being held low) (IC301, IC001, IC002, CN001)

Flash Timing Example : e.g. error number 3

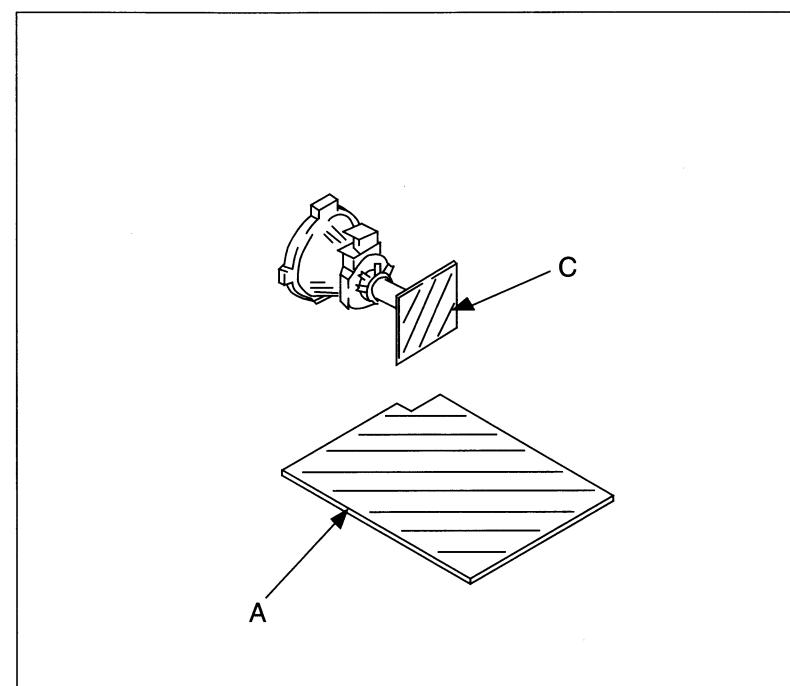
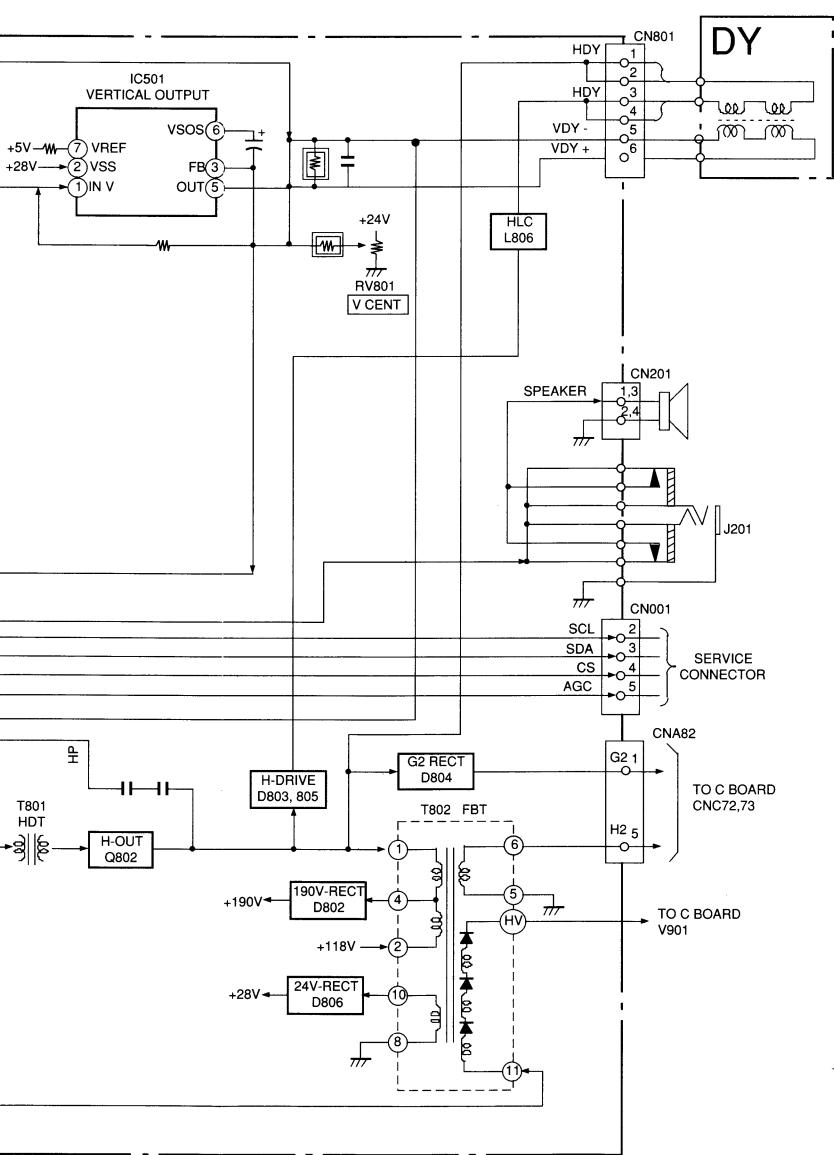
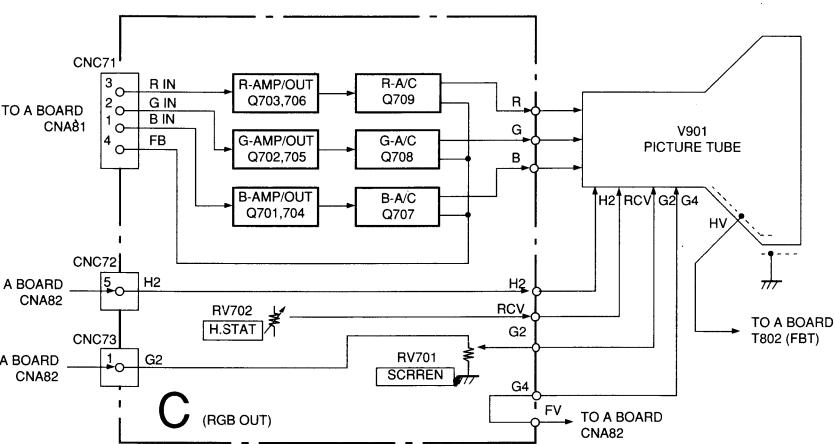
Stby LED



Note : Deflection System Adjustments should not be carried out whilst using an NTSC (60Hz) signal, or if the signal is unlocked.

**SECTION 5
DIAGRAMS**


5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in μF unless otherwise noted. pF: $\mu\mu\text{F}$ 50WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms. k = 1000 , M = 1000K
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5 mm
Rating electrical power $\frac{1}{4} \text{ W}$

- : nonflammable resistor.
- : internal component.
- : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth - ground.
- : earth - chassis.
- : no mounted.

Note : The components identified by shading and marked are critical for safety. Replace only with the part number specified.

Note : Les composants identifiés par une trame et une marque sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: X	ADJUSTABLE RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

- Readings are taken with a colour-bar signal input.
- Readings are taken with 10MΩ digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.
- : B+ bus.
- : signal path. (RF)

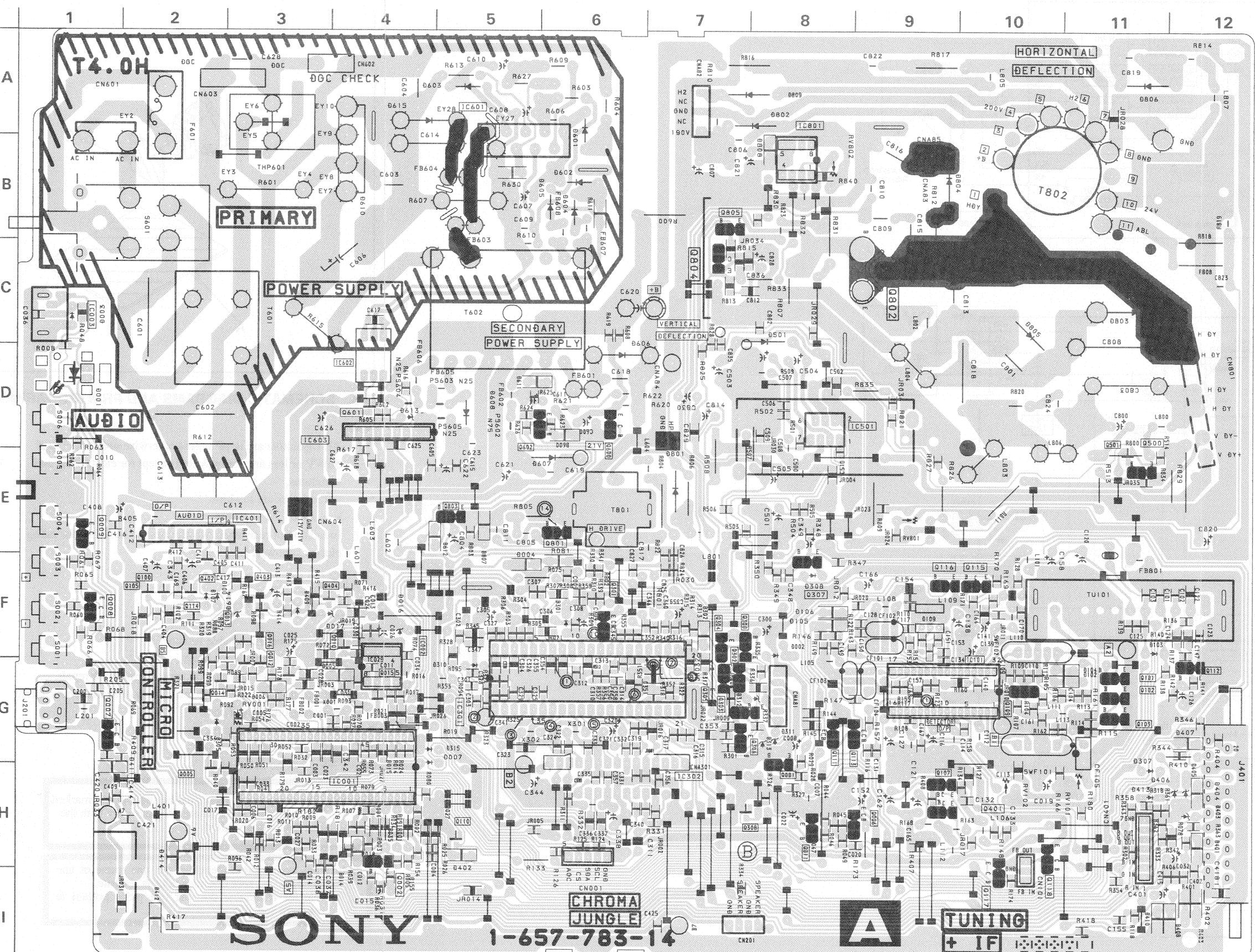
A BOARD

IC					
IC001	I-4	Q303	G-7	D402	H-5
IC002	G-4	Q304	F-7	D403	H-12
IC003	C-1	Q305	G-7	D404	H-12
IC101	G-10	Q306	G-8	D405	H-12
IC301	G-5	Q307	F-8	D406	H-11
IC302	H-7	Q308	H-7	D407	G-12
IC401	E-3	Q401	H-10	D408	I-12
IC501	D-9	Q402	F-2	D409	F-3
IC601	A-5	Q403	F-3	D410	I-11
IC603	D-3	Q404	F-4	D412	I-2
TRANSISTOR		Q600	D-6	D414	H-2
		Q602	D-6	D501	E-8
		Q801	E-6	D600	D-6
		Q802	C-9	D601	A-6
		Q803	E-5	D602	B-6
		Q804	C-7	D603	A-5
		Q805	B-7	D604	B-6
DIODE					
		D001	D-1	D605	B-6
		D002	F-8	D606	D-6
		D003	C-1	D607	E-6
		D004	F-5	D608	D-5
		D005	G-4	D610	B-4
		D006	G-3	D611	D-6
		D014	I-4	D612	E-5
		D016	G-4	D613	E-3
		D100	F-3	D614	F-3
		D102	G-11	D801	E-7
		D104	G-11	D802	A-8
		D105	F-8	D803	C-11
		D106	F-8	D804	B-10
		D107	F-2	D805	C-10
		D109	F-9	D806	A-11
		D301	F-6	D807	E-5
		D302	F-7	D809	A-8
VARIABLE RESISTOR					
		D305	G-2	RV102	H-10
		D307	G-11	RV801	E-9
		D308	F-8		
		D310	F-5		
		D315	G-5		
		D401	H-12		

A

SYSTEM CONTROL, HORIZONTAL OUTPUT,
VERTICAL OUTPUT, CHROMINANCE,
POWER, AUDIO

— A BOARD —

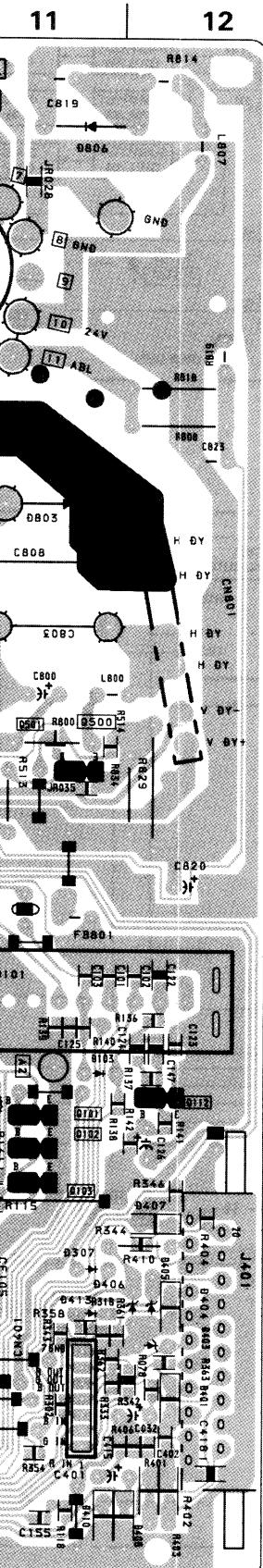


NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

A	B
C016	
C017	
C112	
C114	
C116	
C120	
C131	
C151	
C153	
C164	
C322	
C348	
C349	
CF101	
CF102	
CF103	
CF104	
CF105	
CN201	
CN602	
D105	
D106	
D109	
D307	
D308	
IC001	
IC101	
IC301	
JR011	
L108	
L802	
Q111	
Q113	
Q307	
Q308	
R006	
R122	
R134	
R143	
R144	
R145	
R147	
R149	
R151	
R153	
R157	
R158	
R161	
R180	
R326	
R327	
R347	
R348	
R349	
R350	
R351	
R410	
RV102	
SWF1C	
TU101	
X301	

A BOARD * MARK



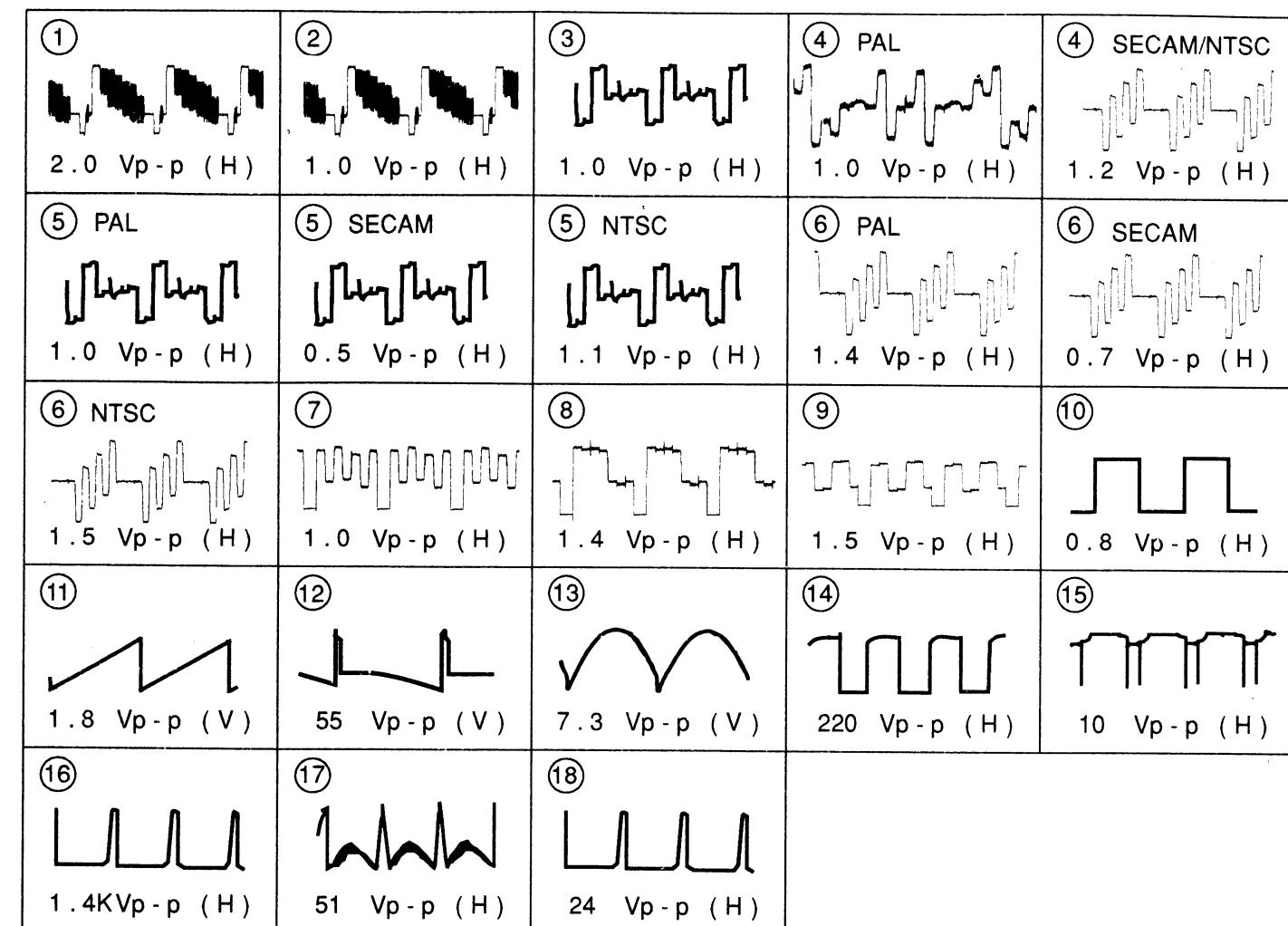
KV-21M1/T1

KV-21M1/T1

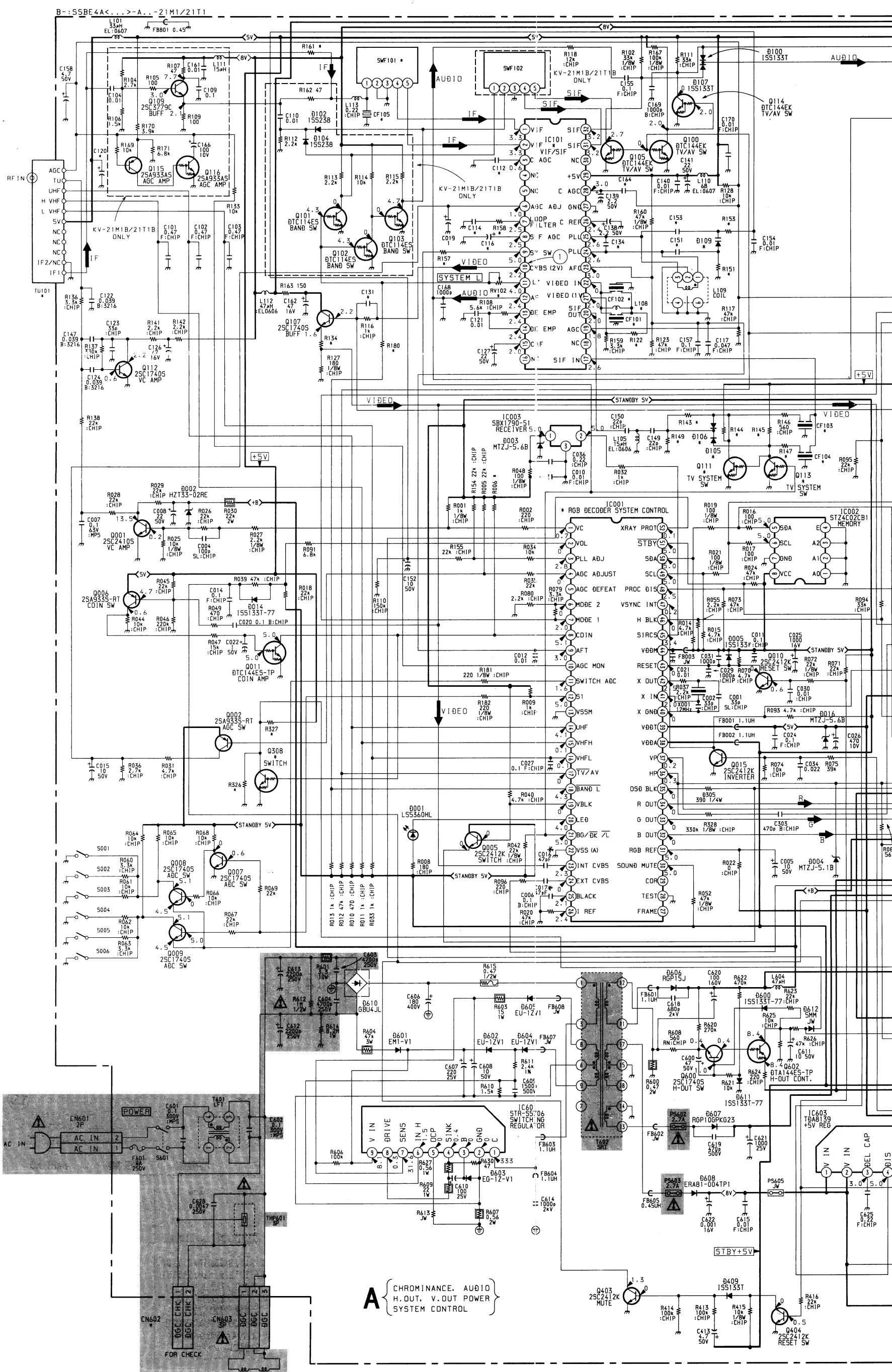
A BOARD * MARK-2 (IC001)

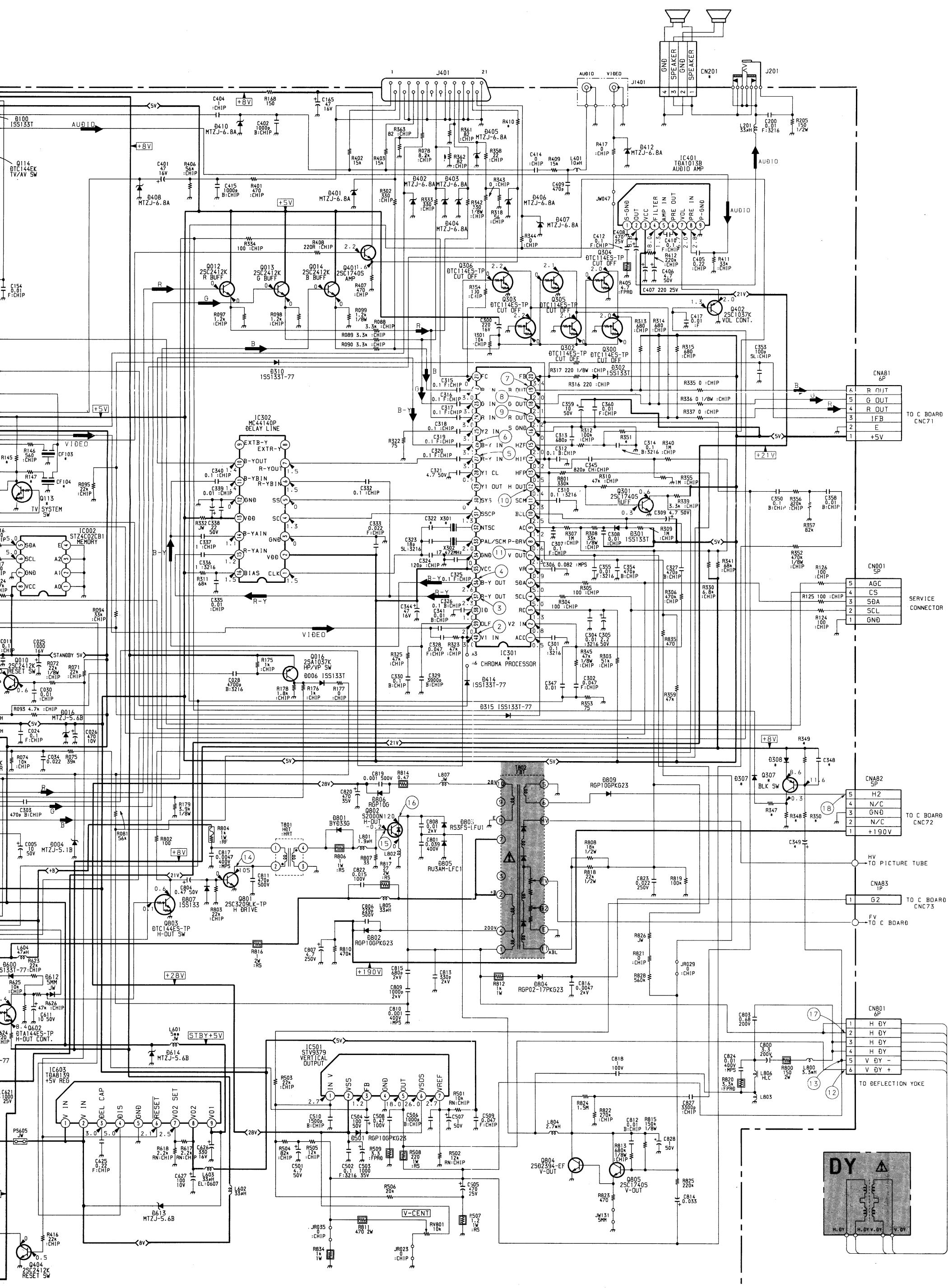
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KV-21T1A/21T1B/21T1D/21T1E/21T1K/21T1L/21T1R/21T1U	SAA5290ZP/014

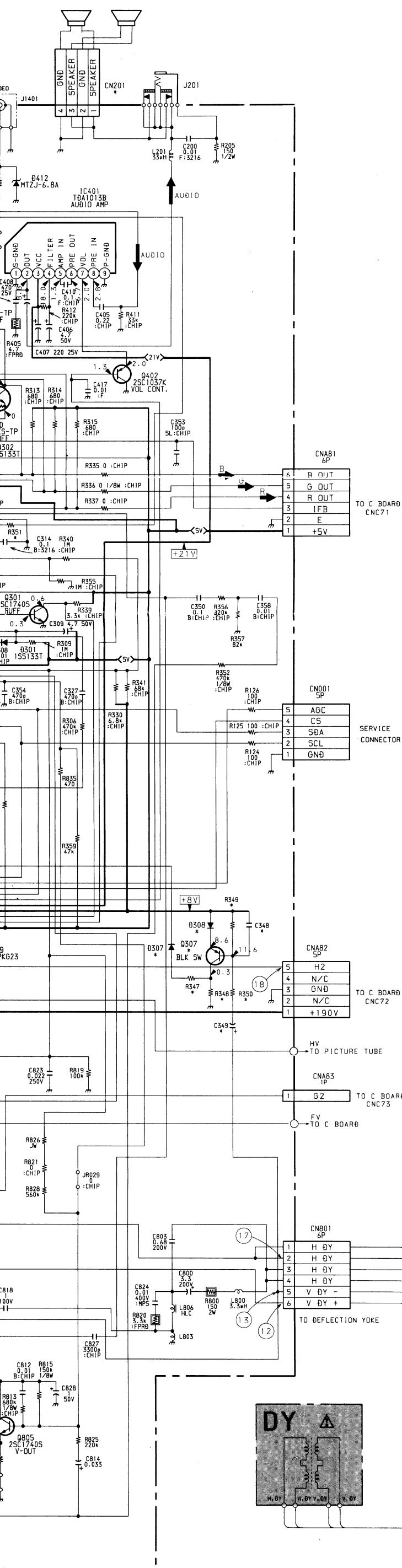
WAVEFORMS A BOARD



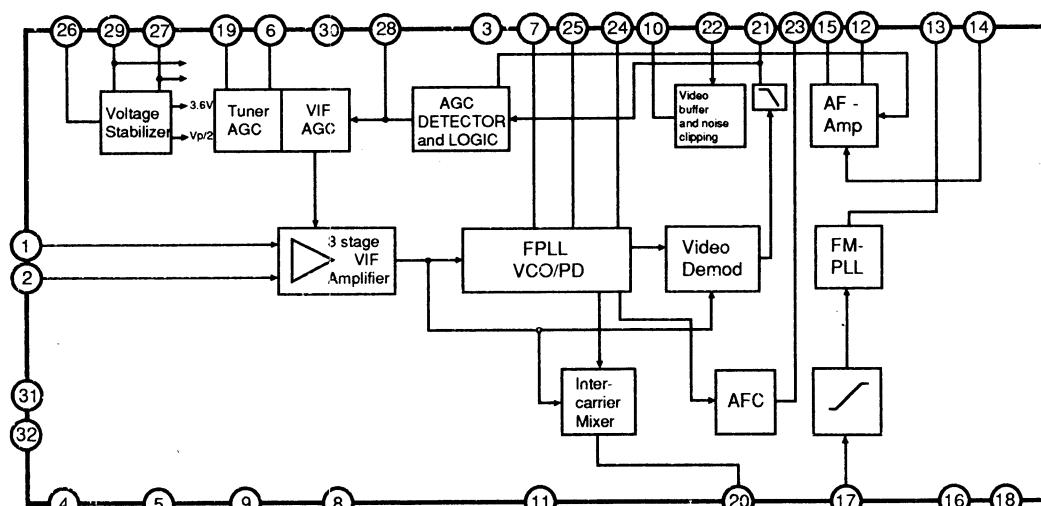
A B C D E F G H I J K L M N O



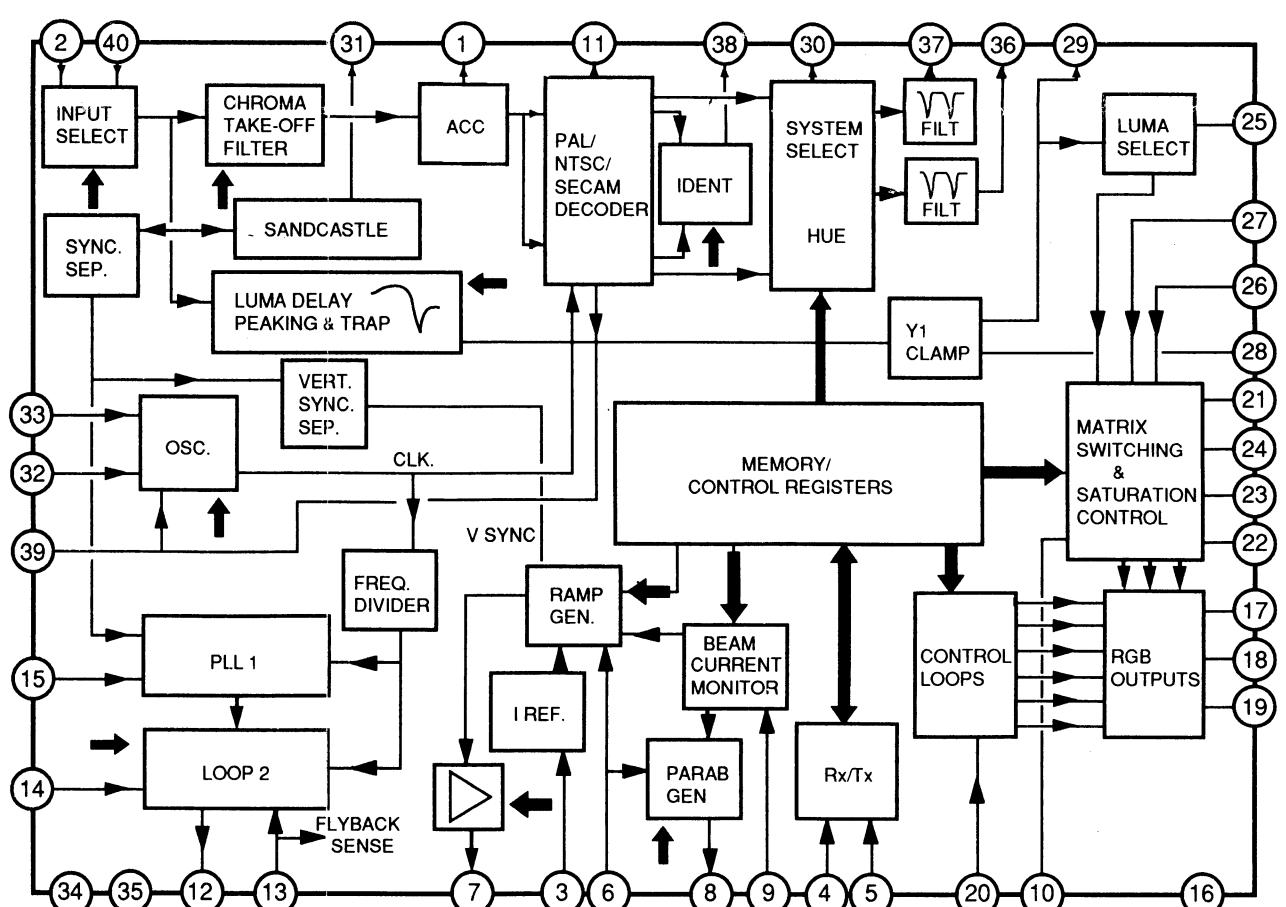




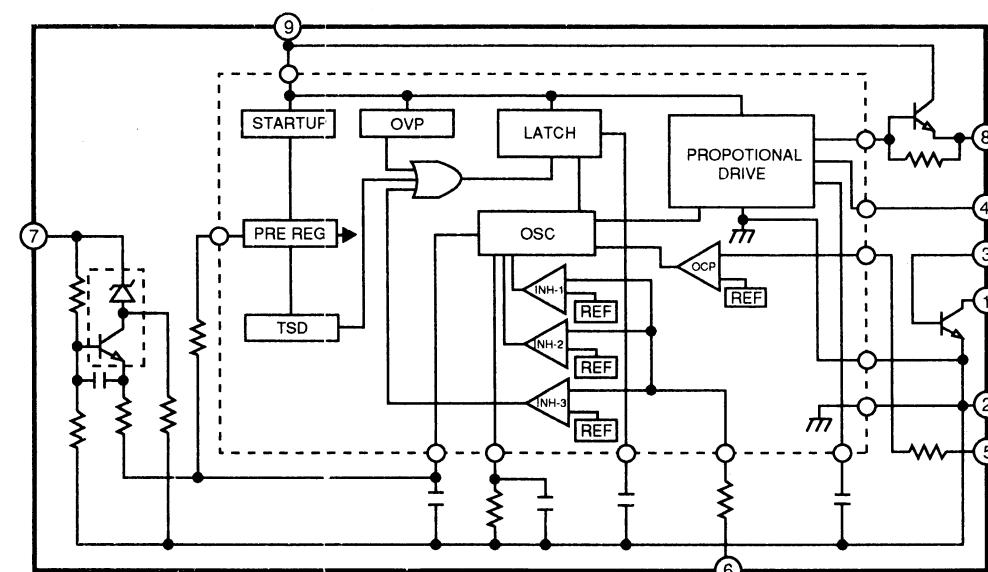
A BOARD IC101 TDA9806/TDA9812



A BOABD IC301 MC44002P/MC44007E

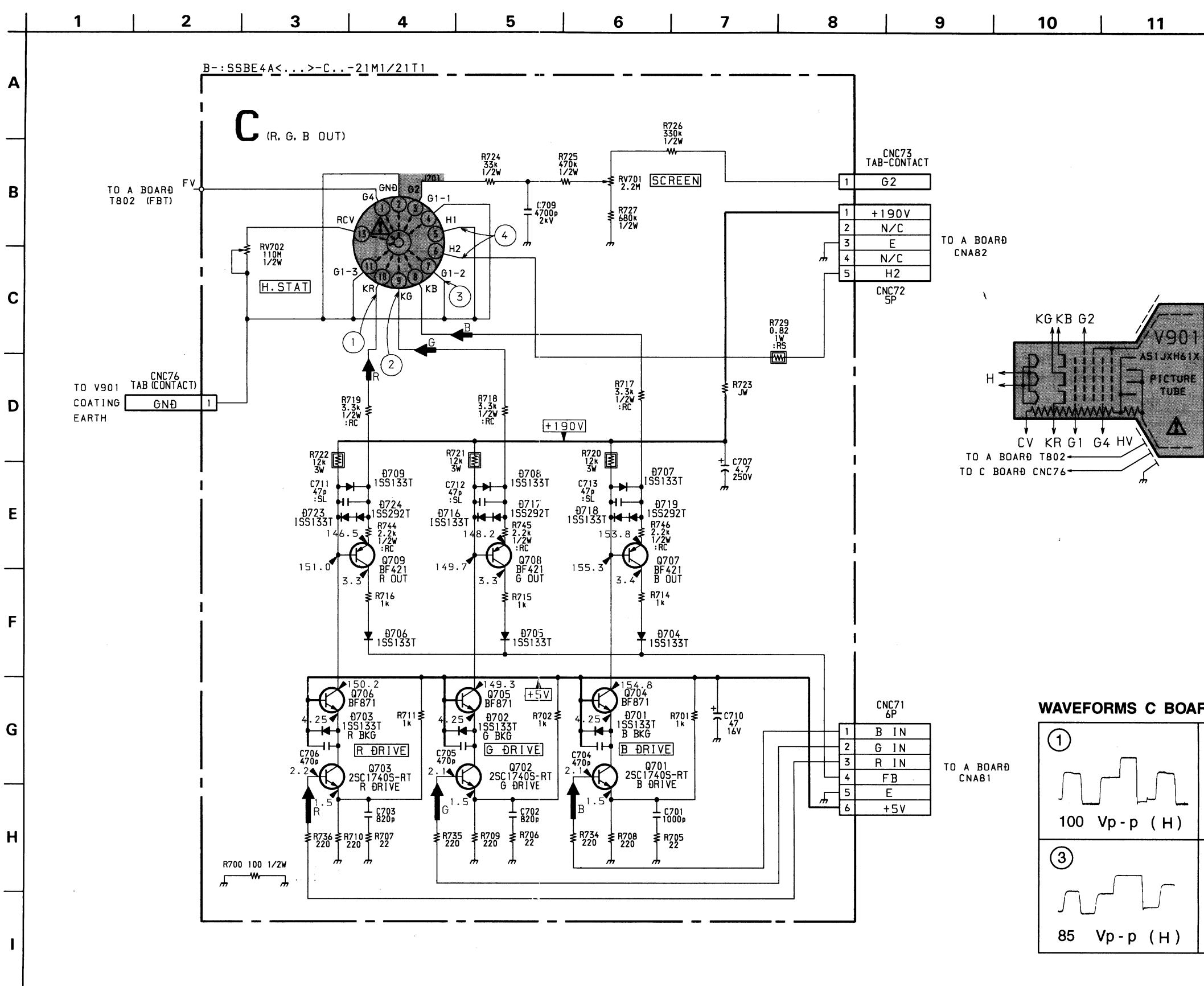
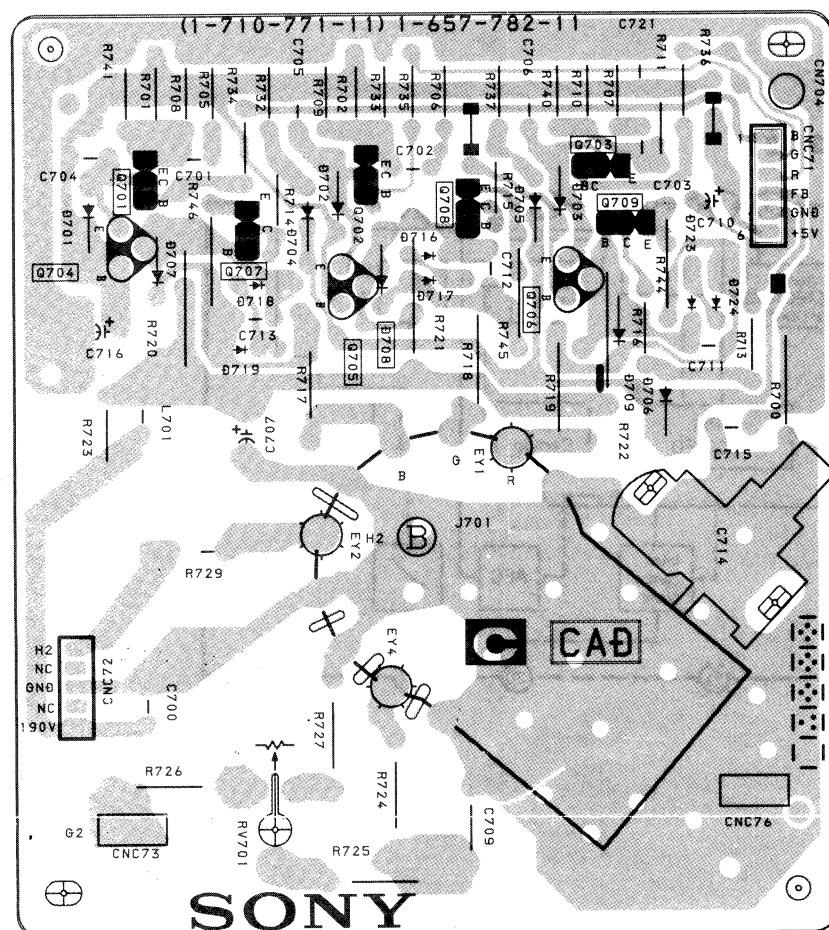


A BOARD IC601 STRS5706



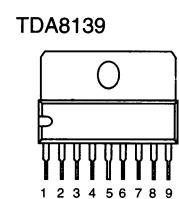
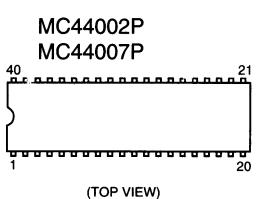
C [R.G.B OUT]

— C BOARD —

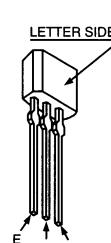


5-4. SEMICONDUCTORS

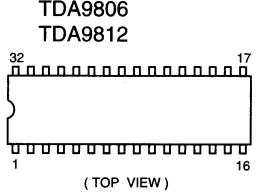
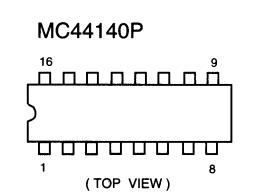
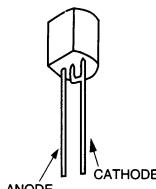
11 | 12



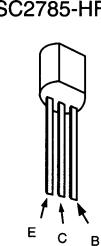
2SA933AS
2SA933S
2SA1175-HFE
2SC2410SN



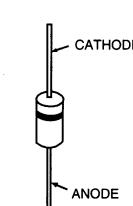
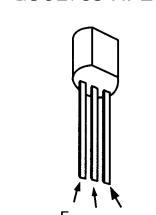
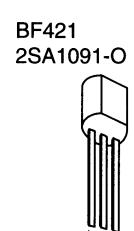
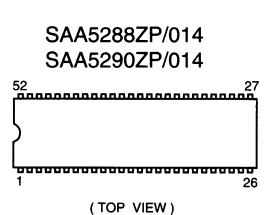
HZT33-02RE
UPC574J



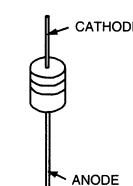
2SC1740S
2SC2785-HFE



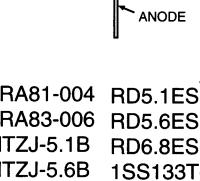
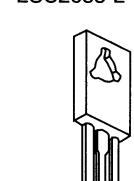
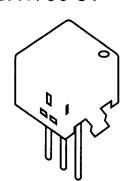
BYD33G EU-1Z
EG-1Z-V1 RGP02-17EL-6433
EGP20G RGP02-17PKG23
EL1Z RGP10GPKG23
EM1-V1 RGP15J-6040FG23
ERC06-15S RU3AM
ERD28-06S 1SS168
ERD28-08S 1SS238



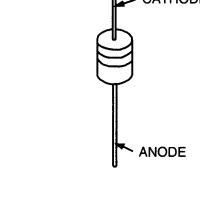
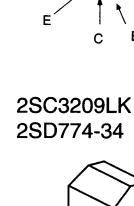
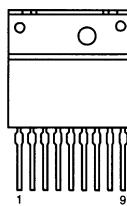
ERA81-004 RD5.1ESB2
ERA83-006 RD5.6ESB2
MTZJ-5.1B RD6.8ESB2
MTZJ-5.6B 1SS133T-77
MTZJ-6.8A



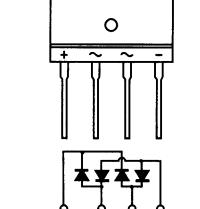
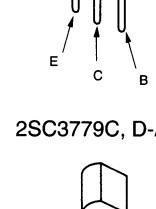
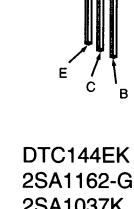
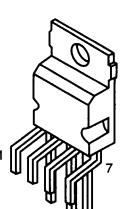
SBX1790-51



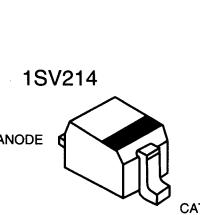
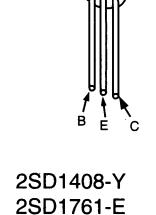
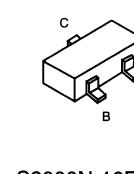
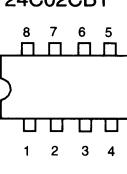
STR-S5706



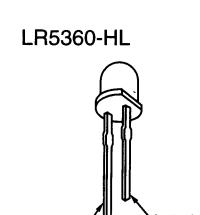
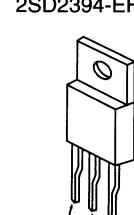
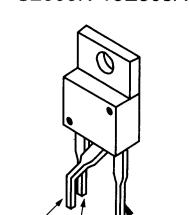
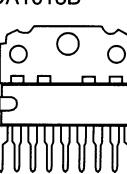
STV9379



ST24C02CB1



TDA1013B

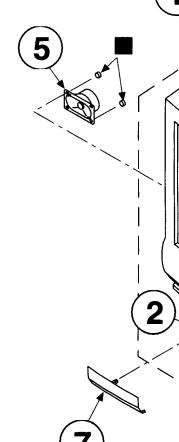


NOTE :

- Items with no part number are seldom required.
- The construction number in the right margin indicates the number of items required.
- Items marked "R" are required for routine service.

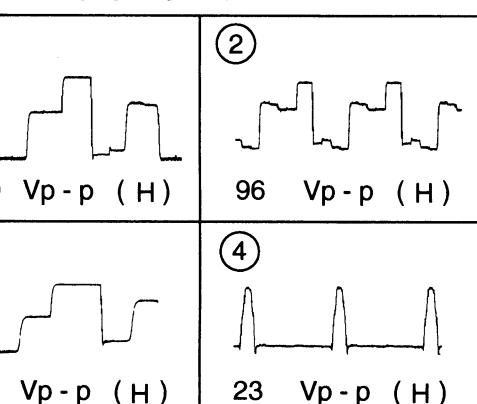
6-1. CHASSIS

■ : +BV
● : -BV



REF NO	P
1	X-42
2	4-04
3	4-20
4	*4-20
5	1-50
6	1-50
7	1-50 4-20
	4-20

FORMS C BOARD



SECTION 6

EXPLODED VIEWS

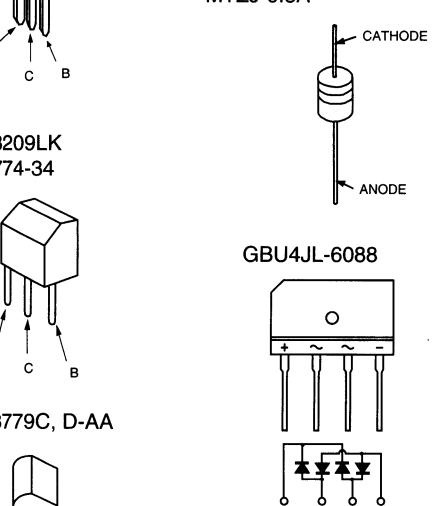
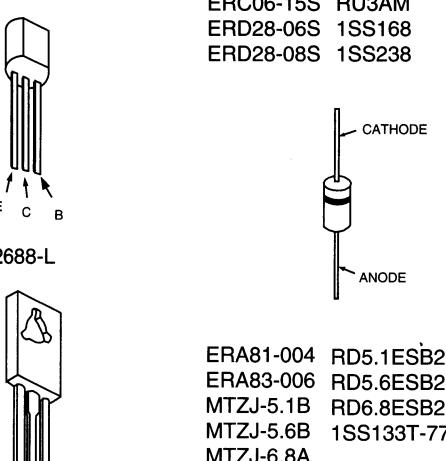
NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked **A** are critical for safety.
Replace only with the part number specified.

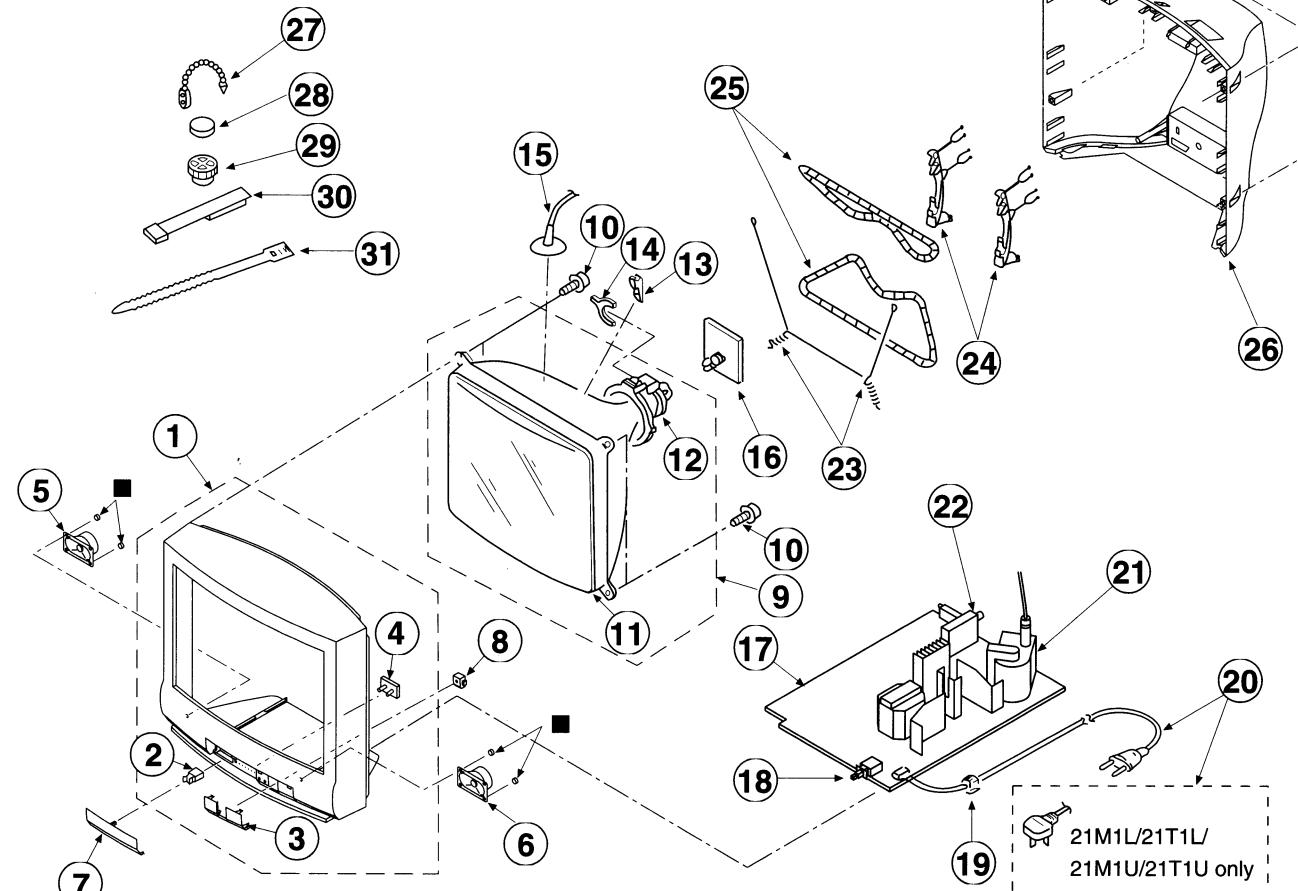
Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

033AS	HZT33-02RE
033S	UPC574J
175-HFE	
2410SN	
LETTER SIDE	
ANODE	CATHODE
BYD33G EU-1Z	
EG-1Z-V1 RGP02-17EL-6433	
EGP20G RGP02-17PKG23	
EL1Z RGP10GPKG23	
EM1-V1 RGP15J-6040FG23	
ERC06-15S RU3AM	
ERD28-06S 1SS168	
ERD28-08S 1SS238	



6-1. CHASSIS

■ : +BVTP 3x12 7-685-648-79
● : +BVTP 4x16 7-685-663-79



REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
1	X-4200-265-1	BEZNET ASSY	2-4	8	4-203-433-01	BUTTON, POWER	
2	4-047-464-01	CATCHER, PUSH		9	8-738-786-71	IRC	11-12
3	4-203-432-01	WINDOW		10	4-036-190-01	SCREW (5), TAPPING	
4	*4-203-431-01	GUIDE, LIGHT		11	8-738-784-05	PICTURE TUBE (SD169) (A51JXH61X)	
5	1-504-899-11	SPEAKER (9X5CM) (KV-21M1K/21T1K/21T1R)		12	8-451-235-45	REFLECTION Yoke (Y21PFA2BA)	
6	1-503-258-21	SPEAKER (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/21M1E/21T1E/21M1L/21T1L/21M1U/21T1U)		13	3-704-495-01	SPACER, DY	
7	1-504-899-11 4-203-430-01	SPEAKER (9X5CM) (KV-21M1K/21T1K/21T1R) DOOR (BARE) (KV-21M1A/21M1D/21M1E/21M1K/21M1L/21M1U)		14	1-452-277-00	MAGNET, BMC	
	4-203-435-21 4-203-435-11	DOOR (PRINTED) (KV-21T1A/21T1B/21T1D) DOOR (PRINTED) (KV-21T1K/21T1L/21T1R/21T1U)		15	1-540-006-22	CAP ASSY, HIGH-VOLTAGE	
				16	*A-1638-074-A	C BOARD, COMPLETE	

The components identified by shading and marked are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
17	*A-1632-484-A *A-1632-483-A *A-1632-482-A *A-1632-481-A *A-1632-487-A *A-1632-480-A *A-1632-486-A *A-1632-485-A *A-1632-477-A *A-1632-478-A *A-1632-475-A *A-1632-476-A *A-1632-479-A *A-1632-474-A *A-1632-473-A	A BOARD, COMPLETE (KV-21M1A) A BOARD, COMPLETE (KV-21T1A) A BOARD, COMPLETE (KV-21M1B) A BOARD, COMPLETE (KV-21T1B) A BOARD, COMPLETE (KV-21M1D) A BOARD, COMPLETE (KV-21T1D) A BOARD, COMPLETE (KV-21M1E) A BOARD, COMPLETE (KV-21T1E) A BOARD, COMPLETE (KV-21M1K) A BOARD, COMPLETE (KV-21T1K) A BOARD, COMPLETE (KV-21M1L) A BOARD, COMPLETE (KV-21T1L) A BOARD, COMPLETE (KV-21T1R) A BOARD, COMPLETE (KV-21M1U) A BOARD, COMPLETE (KV-21T1U)					
18	1-571-433-21	SWITCH PUSH (AC POWER)					
19	*4-202-531-01	AC CORD LOCK (SC)					
20	1-690-270-21	CORD, POWER (WITH CONNECTOR) (KV-21M1A/21T1A/21M1B/21T1B/21M1D/ 21T1D/21M1E/21T1E/21M1K/21T1K/ 21T1R)					
	1-590-762-11	CORD, POWER (WITH PLUG) (KV-21M1L/21T1L/21M1U/21T1U)					
21	1-453-169-11	TRANSFORMER ASSY, PFLYBACK (UX-1604A2)					
22	8-598-331-00	TUNER (BT-AC401) (KV-21M1A/21T1A/21M1E/21T1E/21M1K/ 21T1K)					
	1-693-310-11	TUNER (TELE4-002B) (KV-21M1B/21T1B/21M1D/21T1D/21T1R)					
	1-693-302-11	TUNER (UV1315) (KV-21M1L/21T1L)					
	8-598-333-00	TUNER (BT-AU601) (KV-21M1U/21T1U)					
23	4-369-318-21	SPRING, TENSION (KV-21M1A/21T1A/21M1B/21T1B/21M1D/ 21T1D/21M1E/21T1E)					
	4-200-433-01	SPRING, EXTENSION (KV-21M1K/21T1K/21M1L/21T1L/21T1R/ 21M1U/21T1U)					
24	*4-386-622-11	BAND, DGC (KV-21M1A/21T1A/21M1B/21T1B/21M1D/ 21T1D/21M1E/21T1E)					
	*4-386-622-04	BAND, DGC (KV-21M1K/21T1K/21T1R/21M1U/21T1U)					
25	1-406-828-11	COIL, DEGAUSSING					
26	4-203-429-01	COVER (REAR) (KV-21M1A/21T1A/21M1B/21T1B/21M1D/ 21T1D/21M1E/21T1E)					
	4-203-437-01	COVER (REAR) (KV-21M1K/21T1K/21T1R/21M1U/21T1U)					
27	4-308-870-00	CLIP, LEAD WIRE					
28	1-452-032-00	MAGNET, DISK; 10MM Ø					
29	1-452-094-00	MAGNET, ROTATABBLE DISK; 15MM Ø					
30	X-4387-214-1	PERMALLOY ASSY, CORRECTION					
31	3-701-007-00	BAND, BINDING					

SECTION 7

ELECTRICAL PARTS LIST

When indicating parts by reference number, please include the board name.

CAPACITORS COILS
MF : mF, PF : mmF MMH : mH, μ H : mH

A

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable

The components identified by shading and marked ***** are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque ***** sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
*A-1632-484-A	A BOARD, COMPLETE (KV-21M1A)	*****		C016	1-164-005-11	CERAMIC CHIP 0.47MF (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/21M1E/21T1E/21M1L/21T1L/21M1K/21T1K/21M1U/21T1U)	16V
*A-1632-483-A	A BOARD, COMPLETE (KV-21T1A)	*****		C017	1-164-005-11	CERAMIC CHIP 0.47MF (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/21M1E/21T1E/21M1L/21T1L/21M1K/21T1K/21M1U/21T1U)	16V
*A-1632-482-A	A BOARD, COMPLETE (KV-21M1B)	*****		C019	1-124-903-11	ELECT 1MF	20% 50V
*A-1632-481-A	A BOARD, COMPLETE (KV-21T1B)	*****		C020	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
*A-1632-487-A	A BOARD, COMPLETE (KV-21M1D)	*****		C021	1-163-059-00	CERAMIC CHIP 0.01MF	50V
*A-1632-480-A	A BOARD, COMPLETE (KV-21T1D)	*****		C022	1-124-903-11	ELECT 1MF	20% 50V
*A-1632-486-A	A BOARD, COMPLETE (KV-21M1E)	*****		C024	1-163-038-00	CERAMIC CHIP 0.1MF	25V
*A-1632-485-A	A BOARD, COMPLETE (KV-21T1E)	*****		C025	1-107-884-11	ELECT 1000MF	20% 16V
*A-1632-477-A	A BOARD, COMPLETE (KV-21M1K)	*****		C026	1-126-925-11	ELECT 470MF	20% 10V
*A-1632-478-A	A BOARD, COMPLETE (KV-21T1K)	*****		C027	1-163-038-00	CERAMIC CHIP 10000PF	25V
*A-1632-475-A	A BOARD, COMPLETE (KV-21M1L)	*****		C028	1-163-055-00	CERAMIC CHIP 0.0047MF	10% 50V
*A-1632-476-A	A BOARD, COMPLETE (KV-21T1L)	*****		C029	1-163-009-11	CERAMIC CHIP 1000PF	10% 50V
*A-1632-479-A	A BOARD, COMPLETE (KV-21T1R)	*****		C030	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
*A-1632-474-A	A BOARD, COMPLETE (KV-21M1U)	*****		C031	1-163-009-11	CERAMIC CHIP 1000PF	5% 25V
*A-1632-473-A	A BOARD, COMPLETE (KV-21T1U)	*****		C034	1-136-157-00	FILM 0.022MF	5% 50V
4-201-023-11	SPACER, INSULATING			C036	1-164-222-11	CERAMIC CHIP 0.22MF	25V
4-202-373-01	SPRING, IC			C101	1-164-005-11	CERAMIC CHIP 0.47MF	16V
4-382-854-11	SCREW (M3X10), P, SW (+)			C102	1-164-005-11	CERAMIC CHIP 0.47MF	16V
< CAPACITOR >				C103	1-164-005-11	CERAMIC CHIP 0.47MF	16V
C001	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C104	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C002	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C106	1-164-326-91	CERAMIC CHIP MF	% V
C004	1-163-117-00	CERAMIC CHIP 100PF	5% 50V			(KV-21M1E/21T1B)	
C005	1-126-964-11	ELECT 10MF	20% 50V			(KV-21M1K/21T1K/21T1R)	
C006	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C107	1-164-326-91	CERAMIC CHIP MF	% V
C007	1-130-777-00	FILM 0.1MF	5% 63V	C109	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C008	1-126-965-11	ELECT 22MF	20% 50V	C110	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C010	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C112	1-137-399-11	FILM 0.1MF	5% 50V
C011	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C114	1-136-169-00	FILM 0.22MF	5% 50V
C012	1-163-031-11	CERAMIC CHIP 10000PF	50V			(KV-21M1A/21T1A/21M1D/21T1D/21M1E/21T1E/21M1K/21T1K/21M1L/21T1L/21M1U/21T1U)	
C014	1-163-038-00	CERAMIC CHIP 0.1MF	25V			(KV-21M1E/21T1B)	
C015	1-126-964-11	ELECT 10MF	20% 50V	C116	1-136-165-00	FILM 0.1MF	5% 50V
							(KV-21M1E/21T1B)

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C117	1-163-035-00	CERAMIC CHIP 0.047MF	50V	C314	1-163-077-00	CERAMIC CHIP 0.1MF	50V
C120	1-126-926-11	ELECT 1000MF	20% 10V	C315	1-163-038-00	CERAMIC CHIP 0.1MF	25V
	(KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D)			C316	1-163-038-00	CERAMIC CHIP 0.1MF	25V
1-126-925-11	ELECT 470MF	20% 10V		C317	1-163-038-00	CERAMIC CHIP 0.1MF	25V
	(KV-21M1E/21T1E/21M1K/21T1K/21M1L/21T1L/			C318	1-163-038-00	CERAMIC CHIP 0.1MF	25V
	21T1R/21M1U/21T1U)			C319	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C121	1-136-153-00	FILM 0.01MF	5% 50V	C320	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C122	1-164-665-11	CERAMIC CHIP 0.039MF	10% 50V	C321	1-126-963-11	ELECT 4.7MF	20% 50V
C123	1-163-105-00	CERAMIC CHIP 33PF	5% 50V	C322	1-163-099-00	CERAMIC CHIP 18PF	5% 50V
C124	1-164-665-11	CERAMIC CHIP 0.039MF	10% 50V		(KV-21M1K/21T1K/21T1R)		
C126	1-126-967-11	ELECT 47MF	20% 16V	C323	1-163-163-00	CERAMIC CHIP 18PF	5% 50V
C127	1-126-965-11	ELECT 22MF	20% 50V	C324	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
C131	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	C325	1-163-038-00	CERAMIC CHIP 0.1MF	25V
	(KV-21M1K/21T1K/21T1R)			C326	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C134	1-163-463-91	CERAMIC CHIP MF % V		C327	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
	(KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/			C328	1-163-035-00	CERAMIC CHIP 0.047MF	50V
	21M1E/21T1E)			C329	1-163-016-00	CERAMIC CHIP 0.0039MF	10% 50V
C138	1-124-925-11	ELECT 2.2MF	20% 50V	C330	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C139	1-124-925-11	ELECT 2.2MF	20% 50V	C332	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C140	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C333	1-163-033-91	CERAMIC CHIP 0.022MF	50V
C141	1-126-965-11	ELECT 22MF	20% 50V	C335	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C147	1-164-665-11	CERAMIC CHIP 0.039MF	10% 50V	C336	1-162-638-11	CERAMIC CHIP 1MF	16V
C149	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C337	1-162-638-11	CERAMIC CHIP 1MF	16V
C150	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C338	1-126-965-11	ELECT 22MF	20% 50V
C151	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C339	1-163-031-11	CERAMIC CHIP 0.01MF	50V
	(KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/			C340	1-163-038-00	CERAMIC CHIP 0.1MF	25V
	21T1U)			C341	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C152	1-126-964-11	ELECT 10MF	20% 50V	C344	1-126-967-11	ELECT 47MF	20% 50V
C153	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	C345	1-163-139-00	CERAMIC CHIP 820PF	10% 50V
	(KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/			C347	1-163-059-91	CERAMIC CHIP 0.01MF	10% 50V
	21T1U)			C348	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C154	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C349	1-126-965-11	ELECT 22MF	(KV-21M1B/21T1B)
C155	1-163-038-00	CERAMIC CHIP 0.1MF	25V				(KV-21M1B/21T1B)
C157	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C350	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C158	1-126-963-11	ELECT 4.7MF	20% 50V	C353	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C161	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C354	1-163-197-00	CERAMIC CHIP 470PF	10% 50V
	(KV-21M1B/21T1B)			C355	1-163-059-11	CERAMIC CHIP 0.01MF	50V
C162	1-126-967-11	ELECT 47MF	20% 16V	C358	1-164-232-11	CERAMIC CHIP 0.01MF	10% 100V
C164	1-162-638-11	CERAMIC CHIP 1MF	16V				
	(KV-21M1B/21T1B)			C359	1-126-964-11	ELECT 10MF	20% 50V
C165	1-126-967-11	ELECT 47MF	20% 16V	C360	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C166	1-126-933-11	ELECT 100MF	20% 10V	C401	1-126-967-11	ELECT 47MF	20% 16V
	(KV-21M1B/21T1B)			C402	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C168	1-163-205-00	CERAMIC CHIP 0.001MF	10% 50V	C404	1-164-346-00	CERAMIC CHIP 1MF	16V
C169	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C405	1-164-222-11	CERAMIC CHIP 0.22MF	25V
C170	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C406	1-126-963-11	ELECT 4.7MF	20% 50V
C200	1-163-059-00	CERAMIC CHIP 0.01MF	50V	C407	1-104-666-11	ELECT 220MF	20% 25V
C300	1-126-934-11	ELECT 220MF	20% 16V	C408	1-126-941-11	ELECT 470MF	20% 25V
	(KV-21M1B/21T1B)			C409	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
C301	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V	C410	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C302	1-163-035-00	CERAMIC CHIP 0.047MF	50V	C412	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C303	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	C413	1-126-963-11	ELECT 4.7MF	20% 50V
C304	1-163-059-91	CERAMIC CHIP 0.01MF	10% 50V	C414	1-216-295-00	METAL GLAZE 0 5% 1/10W	
C305	1-124-925-11	ELECT 2.2MF	20% 50V	C415	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C306	1-136-164-00	FILM 0.082MF	5% 50V	C417	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C307	1-163-038-00	CERAMIC CHIP 0.1MF	25V	C501	1-126-963-11	ELECT 4.7MF	20% 50V
C308	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C502	1-163-077-00	CERAMIC CHIP 0.1MF	50V
C309	1-126-963-11	ELECT 4.7MF	20% 50V	C503	1-126-952-11	ELECT 1000MF	20% 35V
C310	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V	C504	1-126-968-11	ELECT 100MF	20% 50V
C312	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C505	1-126-941-11	ELECT 470MF	20% 25V
C313	1-163-007-11	CERAMIC CHIP 0.0015MF	10% 50V				

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK	
C506	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	CF102	1-409-327-00	TRAP, CERAMIC (6.5 MHz) (KV-14E1K/21T1K/21T1R)
C507	1-124-903-11	ELECT	1MF	20%	50V	CF103	1-760-106-11	FILTER, CERAMIC (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E/21M1K/21T1K/21T1R)
C508	1-130-785-11	MYLAR	0.47MF	10%	100V	1-567-100-00	FILTER, CERAMIC (KV-21M1L/21T1L/21M1U/21T1U)	
C509	1-163-035-00	CERAMIC CHIP	0.047MF		50V	CF104	1-567-101-11	FILTER, CERAMIC (KV-14E1K/21T1K/21T1R)
C510	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V	CF105	1-760-154-11	TRAP, CERAMIC (KV-21M1B/21T1B/21M1U/21T1U)
C600	1-126-967-11	ELECT	47MF	20%	50V	SWF101	1-579-120-11	FILTER, SURFACE WAVE (KV-21M1A/21T1A/21M1D/21T1D/21M1E/ 21T1E)
C601	1-136-516-12	FILM	0.1MF	20%	300V		1-579-273-11	FILTER, SURFACE WAVE (KV-21M1B/21T1B)
C602	1-136-516-12	FILM	0.1MF	20%	300V		1-579-414-11	FILTER, SURFACE WAVE (KV-21M1K/21T1K/21T1R)
C603	1-161-964-91	CERAMIC	0.0047MF		250V		1-760-711-11	FILTER, SURFACE WAVE (KV-21M1L/21T1L/21M1U/21T1U)
C604	1-161-964-91	CERAMIC	0.0047MF		250V	SWF102	1-760-722-11	FILTER, SURFACE WAVE (KV-21M1B/21T1B)
C605	1-113-473-11	CAP, ELECT	180MF					< CONNECTOR >
C607	1-104-666-11	ELECT	220MF	20%	25V	CN001	*1-564-508-11	PLUG, CONNECTOR 5P
C608	1-126-964-11	ELECT	10MF	20%	50V	CN201	*1-564-506-11	PLUG, CONNECTOR 3P (KV-21M1A/21T1A/21M1B/21T1B/21T1D/21M1E/ 21T1E/21M1L/21T1L/21M1U/21T1U)
C609	1-109-921-11	CERAMIC	0.0015MF	10%	500V		*1-564-507-11	PLUG, CONNECTOR 4P (KV-21M1D/21M1K/21T1K/21T1R)
C610	1-104-665-11	ELECT	100MF	20%	25V	CN601	*1-580-844-11	PIN, CONNECTOR (POWER)
C611	1-126-964-11	ELECT	10MF	20%	50V	CN602	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E)
C612	1-113-907-51	CERAMIC	0.0022MF	20%	250V	CN603	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
C613	1-113-907-51	CERAMIC	0.0022MF	20%	250V	CN801	*1-580-798-11	CONNECTOR PIN (DY) 6P
C614	1-136-538-11	FILM	0.001MF	3%	2KV	CNA81	*1-568-881-51	PIN, CONNECTOR 6P
C615	1-163-031-11	CERAMIC CHIP	0.01MF		50V	CNA82	*1-568-880-51	PIN, CONNECTOR 5P
C618	1-162-116-00	CERAMIC	680PF	10%	2KV			< DIODE >
C619	1-102-228-00	CERAMIC	470PF	10%	500V	D001	8-719-057-56	DIODE LS5360HL
C620	1-124-347-00	ELECT	100MF	20%	160V	D002	8-759-157-40	DIODE µPC574J
C621	1-126-942-61	ELECT	1000MF	20%	25V	D003	8-719-109-89	DIODE RD5.6ESB2
C622	1-111-041-11	ELECT	0.001F	20%	16V	D004	8-719-109-85	DIODE RD5.1ES-B2
C625	1-163-081-00	CERAMIC CHIP	0.22MF		25V	D005	8-719-991-33	DIODE ISS133T-77
C626	1-104-661-91	ELECT	330MF	20%	16V	D006	8-719-991-33	DIODE ISS133T-77
C627	1-126-933-11	ELECT	100MF	20%	16V	D014	8-719-991-33	DIODE ISS133T-77
C628	1-161-964-91	CERAMIC	0.0047MF		250V	D100	8-719-991-33	DIODE ISS133T-77
C800	1-107-642-91	ELECT	3.3MF	20%	200V	D102	8-719-903-27	DIODE ISS238-TPA7 (KV-21M1B/21T1B)
C801	1-129-746-00	FILM	0.039MF	10%	400V	D104	8-719-903-27	DIODE ISS238-TPA7 (KV-21M1B/21T1B)
C803	1-136-109-00	FILM	0.68MF	5%	200V	D105	8-719-991-33	DIODE ISS133T-77 (KV-21M1K/21T1K/21T1R)
C804	1-124-902-00	ELECT	0.47MF	20%	50V	D106	8-719-991-33	DIODE ISS133T-77 (KV-21M1K/21T1K/21T1R)
C806	1-102-244-00	CERAMIC	220PF	10%	500V	D107	8-719-991-33	DIODE ISS133T-77
C807	1-107-651-11	ELECT	4.7MF	20%	250V	D109	8-719-820-71	DIODE 1SV214 (KV-21M1K/21T1K/21M1L/21T1L/21T1R/2 1M1U/ 21T1U)
C808	1-136-079-00	FILM	0.01MF	3%	2KV	D301	8-719-991-33	DIODE ISS133T-77
C809	1-161-754-00	CERAMIC	0.001MF	10%	2KV	D302	8-719-991-33	DIODE ISS133T-77
C810	1-129-702-00	FILM	0.001MF	10%	400V	D305	1-249-412-11	CARBON 390 5% 1/4W
C811	1-102-228-00	CERAMIC	470PF	10%	500V	D307	8-719-991-33	DIODE ISS133T-77 (KV-21M1B/21T1B)
C812	1-163-059-91	CERAMIC CHIP	0.01MF	10%	50V	D308	8-719-991-33	DIODE ISS133T-77 (KV-21M1B/21T1B)
C813	1-162-115-00	CERAMIC	330PF	10%	2KV	D310	8-719-991-33	DIODE 1SS133T-77
C814	1-136-159-00	FILM	0.033MF	5%	50V			
C815	1-162-116-00	CERAMIC	680PF	10%	2KV			
C816	1-162-114-00	CERAMIC	0.0047MF		2KV			
C817	1-136-559-11	MYLAR	0.0047MF	10%	400V			
C818	1-136-933-11	FILM	1MF	5%	100V			
C819	1-162-318-11	CERAMIC	0.001MF	10%	500V			
C820	1-126-951-11	ELECT	470MF	20%	35V			
C822	1-104-696-11	FILM	0.015MF	10%	100V			
C823	1-106-375-12	MYLAR	0.022MF	10%	250V			
C824	1-106-367-00	MYLAR	0.01MF	10%	400V			
C827	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V			
C828	1-124-903-11	ELECT	1MF	20%	50V			
								< FILTER >
CF101	1-404-801-11	TRAP, CERAMIC (KV-21M1A/21T1A/21M1D/21T1D/21M1E/21T1E/ 21M1K/21T1K/21T1R)						
	1-409-430-11	TRAP, CERAMIC (KV-21M1B/21T1B)						
	1-409-429-11	TRAP, CERAMIC (KV-21M1L/21T1L/21M1U/21T1U)						

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
D315	8-719-991-33	DIODE 1SS133T-77		IC002	8-759-280-74	IC ST24C02CB1	
D401	8-719-109-97	DIODE RD6.8ES-B2		IC003	8-747-905-11	IC SBX1790-51	
D402	8-719-109-97	DIODE RD6.8ES-B2		IC101	8-759-333-19	IC TDA9806 (KV-21M1A/21T1A/21M1D/21T1D/21M1E/21T1E/ 21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)	
D403	8-719-109-97	DIODE RD6.8ES-B2		8-759-333-17	IC TDA9812 (KV-21M1B/21T1B)		
D404	8-719-109-97	DIODE RD6.8ES-B2		IC301	8-759-333-44	IC MC44007P (KV-21M1A/21T1A/21M1E/21T1E/21M1L/21T1L/ 21M1U/21T1U)	
D405	8-719-109-97	DIODE RD6.8ES-B2		8-759-333-45	IC MC44002P (KV-21M1B/21T1B/21M1D/21T1D/21M1K/21T1K/ 21T1R)		
D406	8-719-109-97	DIODE RD6.8ES-B2		IC302	8-759-333-46	IC MC44140P	
D407	8-719-109-97	DIODE RD6.8ES-B2		IC401	8-759-041-82	IC TDA1013B	
D408	8-719-109-97	DIODE RD6.8ES-B2		IC501	8-759-192-72	IC STV9379	
D409	8-719-991-33	DIODE 1SS133T-77		IC601	8-749-011-02	IC STR-S5706	
D410	8-719-109-97	DIODE RD6.8ES-B2		IC603	8-759-337-99	IC TDA8139	
D412	8-719-109-97	DIODE RD6.8ES-B2					< SOCKET >
D414	8-719-991-33	DIODE 1SS133T-77		J201	1-568-267-21	JACK	
D501	8-719-302-43	DIODE EL1Z		J401	1-561-534-00	SOCKET, PIN 21P	
D600	8-719-991-33	DIODE 1SS133T-77		J1401	1-778-054-11	JACK PIN	
D601	8-719-046-77	DIODE EM1-V1					< COIL >
D602	8-719-312-61	DIODE EU-1Z		L101	1-410-669-31	INDUCTOR	33UH
D603	8-719-046-78	DIODE EG-1Z-V1		L105	1-408-411-00	INDUCTOR	15UH
D604	8-719-312-61	DIODE EU-1Z		L108	1-408-408-00	INDUCTOR	8.2UH (KV-21M1A/21T1A/21M1B/21T1E/21M1D/21T1D/ 21M1E/21T1E/21M1L/21T1L/21M1U/21T1U)
D605	8-719-312-61	DIODE EU-1Z		1-408-405-00	INDUCTOR	4.7UH	(KV-21M1K/21T1K/21T1R)
D606	8-719-979-85	DIODE EGP20G		L109	1-403-586-12	COIL	
D607	8-719-302-43	DIODE EL1Z		L110	1-410-673-41	INDUCTOR	68UH
D608	8-719-980-78	DIODE ERA83-006		L111	1-410-665-31	INDUCTOR	15UH (KV-21M1B/21T1B)
D610	8-719-025-88	DIODE GBU4JL-6088		L112	1-408-417-00	INDUCTOR	47UH
D611	8-719-991-33	DIODE 1SS133T-77		L113	1-410-985-11	INDUCTOR CHIP	0.22UH
D613	8-719-109-89	DIODE RD5.6ESB2					
D614	8-719-109-89	DIODE RD5.6ESB2		L201	1-412-531-31	INDUCTOR	33UH
D801	8-719-950-57	DIODE BYD33G		L401	1-408-409-00	INDUCTOR	10UH
D802	8-719-302-43	DIODE EL1Z		L602	1-408-609-41	INDUCTOR	33UH
D803	8-719-945-80	DIODE ERC06-15S		L603	1-410-669-31	INDUCTOR	33UH
D804	8-719-028-72	DIODE RGP02-17EL-6433		L604	1-408-417-00	INDUCTOR	47UH
D805	8-719-928-08	DIODE ERD28-08S		L800	1-412-553-11	INDUCTOR	3.3MMH
D806	8-719-302-43	DIODE EL1Z		L801	1-420-872-00	COIL, AIR-CORE	
D807	8-719-991-33	DIODE 1SS133T-77		L802	1-407-365-00	COIL, CHOKE	
D809	8-719-302-43	DIODE EL1Z					(KV-21M1A/21T1A/21M1B/21T1E/21M1D/21T1D/ 21M1E/21T1E)
< FUSE >							
F601	1-576-231-11	FUSE (H.B.C.) 4A, 250V		1-411-635-11	COIL, AIR-CORE		
	1-533-725-11	HOLDER, FUSE ; F601 (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E)					(KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)
	1-533-230-12	HOLDER, FUSE ; F601 (KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)		L803	1-459-390-00	COIL (WITH CORE)	
< FERRITE BEAD >							
FB001	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		L804	1-459-105-21	COIL (WITH CORE)	
FB002	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		L805	1-412-531-31	INDUCTOR	33UH
FB601	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		L806	1-459-652-12	HLC	
FB603	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH					
FB604	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH					
FB605	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH					
FB801	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH					
< IC >							
IC001	8-759-368-69	IC SAA5288ZP/014 (KV-21M1A/21M1B/21M1D/21M1E/21M1K/21M1L/ 21M1U)					< IC LINK >
	8-759-368-23	IC SAA5290ZP/014 (KV-21T1A/21T1B/21T1D/21T1E/21T1K/21T1L/ 21T1R/21T1U)		PS602	1-532-686-91	LINK, IC 2.7A (ICP-V75)	
				PS603	1-532-686-91	LINK, IC 2.7A (ICP-V75)	

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
< TRANSISTOR >							
Q001	8-729-922-66	TRANSISTOR 2SC2410SN		JR011	1-216-295-00	METAL GLAZE 0	5% 1/10W (KV-21M1B/21T1B)
Q002	8-729-119-76	TRANSISTOR 2SA1175-HFE		JR012	1-216-295-00	METAL GLAZE 0	5% 1/10W
Q005	8-729-920-74	TRANSISTOR 2SC2412K-QR		JR013	1-216-295-00	METAL GLAZE 0	5% 1/10W
Q006	8-729-119-76	TRANSISTOR 2SA1175-HFE		JR014	1-216-296-00	METAL GLAZE 0	5% 1/8W
Q007	8-729-119-78	TRANSISTOR 2SC2785-HFE		JR015	1-216-295-00	METAL GLAZE 0	5% 1/10W
Q008	8-729-119-78	TRANSISTOR 2SC2785-HFE		JR017	1-216-295-00	METAL GLAZE 0	5% 1/10W
Q009	8-729-119-78	TRANSISTOR 2SC2785-HFE		JR018	1-216-296-00	METAL GLAZE 0	5% 1/8W
Q010	8-729-920-74	TRANSISTOR 2SC2412K-QR		JR019	1-216-296-00	METAL GLAZE 0	5% 1/8W
Q011	8-729-900-89	TRANSISTOR DTC144ES		JR021	1-216-296-00	METAL GLAZE 0	5% 1/8W
Q012	8-729-920-74	TRANSISTOR 2SC2412K-QR		JR022	1-216-296-00	METAL GLAZE 0	5% 1/8W
Q013	8-729-920-74	TRANSISTOR 2SC2412K-QR		JR023	1-216-295-00	METAL GLAZE 0	5% 1/10W
Q014	8-729-920-74	TRANSISTOR 2SC2412K-QR		JR027	1-216-296-00	METAL GLAZE 0	5% 1/8W
Q015	8-729-920-74	TRANSISTOR 2SC2412K-QR		JR028	1-216-296-00	METAL GLAZE 0	5% 1/8W
Q016	8-729-216-22	TRANSISTOR 2SC1162-G		JR029	1-216-295-00	METAL GLAZE 0	5% 1/10W
Q100	8-729-901-01	TRANSISTOR DTC144EK		JR030	1-216-296-00	METAL GLAZE 0	5% 1/8W
Q101	8-729-900-80	TRANSISTOR DTC114ES (KV-21M1B/21T1B)		JR031	1-216-296-00	METAL GLAZE 0	5% 1/8W
Q102	8-729-900-80	TRANSISTOR DTC114ES (KV-21M1B/21T1B)		JR032	1-216-296-00	METAL GLAZE 0	5% 1/8W
Q103	8-729-900-80	TRANSISTOR DTC114ES (KV-21M1B/21T1B)		JR034	1-216-296-00	METAL GLAZE 0	5% 1/8W
Q105	8-729-901-01	TRANSISTOR DTC144EK		JR035	1-216-295-00	METAL GLAZE 0	5% 1/10W
Q107	8-729-119-78	TRANSISTOR 2SC2785-HFE		JW101	1-249-413-11	CARBON 470	5% 1/4W
Q109	8-729-022-54	TRANSISTOR 2SC3779C, D-AA (KV-21M1B/21T1B)		R001	1-216-198-91	METAL GLAZE 1K	5% 1/8W
Q111	8-729-900-89	TRANSISTOR DTC144ES (KV-21M1K/21T1K/21T1R)		R002	1-216-033-00	METAL GLAZE 2.2K	5% 1/10W
Q112	8-729-119-78	TRANSISTOR 2SC2785-HFE		R005	1-216-081-00	METAL GLAZE 22K	5% 1/10W
Q113	8-729-900-89	TRANSISTOR DTC144ES (KV-21M1K/21T1K/21T1R)		R006	1-216-089-00	METAL GLAZE 47K	5% 1/10W (KV-21M1A/21T1A/21M1E/21T1E/21M1L/21T1L/21M1U/21T1U)
Q114	8-729-901-01	TRANSISTOR DTC144EK		1-216-085-00	METAL GLAZE 33K	5% 1/10W (KV-21M1B/21T1B/21M1D/21T1D/21M1K/21T1K/21T1R)	
Q115	8-729-026-41	TRANSISTOR 2SA933AS-RT (KV-21M1B/21T1B)		Q116	8-729-900-89	TRANSISTOR DTC144ES (KV-21M1B/21T1B)	
Q300	8-729-900-80	TRANSISTOR DTC114ES		R008	1-216-031-00	METAL GLAZE 180	5% 1/10W
Q301	8-729-119-78	TRANSISTOR 2SC2785-HFE		R009	1-216-049-00	METAL GLAZE 1K	5% 1/10W
Q302	8-729-900-80	TRANSISTOR DTC114ES		R010	1-216-041-00	METAL GLAZE 470	5% 1/10W
Q303	8-729-900-80	TRANSISTOR DTC114ES		R011	1-216-049-00	METAL GLAZE 1K	5% 1/10W
Q304	8-729-900-80	TRANSISTOR DTC114ES		R012	1-216-089-00	METAL GLAZE 47K	5% 1/10W
Q305	8-729-900-80	TRANSISTOR DTC114ES		R013	1-216-049-00	METAL GLAZE 1K	5% 1/10W
Q306	8-729-900-80	TRANSISTOR DTC114ES		R014	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
Q307	8-729-026-41	TRANSISTOR 2SA933AS-RT (KV-21M1B/21T1B)		R015	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
Q308	8-729-901-01	TRANSISTOR DTC144EK (KV-21M1B/21T1B/21M1D/21T1D/21M1K/21T1K/21T1R)		R016	1-216-025-00	METAL GLAZE 100	5% 1/10W
Q401	8-729-119-78	TRANSISTOR 2SC2785-HFE		R017	1-216-025-00	METAL GLAZE 100	5% 1/10W
Q402	8-729-216-22	TRANSISTOR 2SA1162-G		R018	1-216-081-00	METAL GLAZE 22K	5% 1/10W
Q403	8-729-920-74	TRANSISTOR 2SC2412K-QR		R019	1-216-174-00	METAL GLAZE 100	5% 1/8W
Q404	8-729-920-74	TRANSISTOR 2SC2412K-QR		R020	1-216-089-00	METAL GLAZE 47K	5% 1/10W
Q600	8-729-119-78	TRANSISTOR 2SC2785-HFE		R021	1-216-174-00	METAL GLAZE 100	5% 1/8W
Q602	8-729-900-65	TRANSISTOR DTA144ES		R022	1-216-295-00	METAL GLAZE 0	5% 1/10W
Q801	8-729-140-96	TRANSISTOR 2SD774-34		R024	1-216-089-00	METAL GLAZE 47K	5% 1/10W
Q802	8-729-033-85	TRANSISTOR S2000N-16E305A		R025	1-216-222-00	METAL GLAZE 10K	5% 1/8W
Q803	8-729-900-89	TRANSISTOR DTC144ES		R026	1-216-081-00	METAL GLAZE 22K	5% 1/10W
Q804	8-729-019-01	TRANSISTOR 2SD2394-EF		R027	1-216-206-00	METAL GLAZE 2.2K	5% 1/8W
Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE		R028	1-216-081-00	METAL GLAZE 22K	5% 1/10W
< RESISTOR >							
JR003	1-216-296-00	METAL GLAZE 0	5% 1/8W	R029	1-216-081-00	METAL GLAZE 22K	5% 1/10W
JR004	1-216-296-00	METAL GLAZE 0	5% 1/8W	R030	1-215-900-11	METAL OXIDE 22K	5% 2W F
JR007	1-216-295-00	METAL GLAZE 0	5% 1/10W	R031	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
JR008	1-216-295-00	METAL GLAZE 0	5% 1/10W	R032	1-216-049-00	METAL GLAZE 1K	5% 1/10W
JR009	1-216-295-00	METAL GLAZE 0	5% 1/10W	R033	1-216-049-00	METAL GLAZE 1K	5% 1/10W
				R034	1-249-429-11	CARBON 10K	5% 1/4W
				R035	1-247-863-91	CARBON 22K	5% 1/4W
				R036	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
				R037	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
				R039	1-216-089-00	METAL GLAZE 47K	5% 1/10W

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R040	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R115	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W (KV-21M1B/21T1B)
R042	1-216-230-00	METAL GLAZE	22K 5% 1/8W	R116	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R044	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R117	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R045	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R118	1-216-075-00	METAL GLAZE	12K 5% 1/10W
R046	1-216-105-91	METAL GLAZE	220K 5% 1/10W	R122	1-216-029-00	METAL GLAZE	150 5% 1/10W
R047	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R123	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R048	1-216-174-00	METAL GLAZE	100 5% 1/8W	R124	1-216-025-00	METAL GLAZE	100 5% 1/10W
R049	1-216-041-00	METAL GLAZE	470 5% 1/10W	R125	1-216-025-00	METAL GLAZE	100 5% 1/10W
R052	1-216-238-91	METAL GLAZE	47K 5% 1/8W	R126	1-216-025-00	METAL GLAZE	100 5% 1/10W
R055	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R127	1-216-180-00	METAL GLAZE	180 5% 1/8W
R060	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R128	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R061	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R133	1-249-429-11	CARBON	10K 5% 1/4W
R062	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R134	1-216-031-00	METAL GLAZE	180 5% 1/10W (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E/21M1K/21T1K/21T1R)
R063	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R135	1-216-029-11	METAL GLAZE	150 5% 1/10W (KV-21M1L/21T1L/21M1U/21T1U)
R064	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R136	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R065	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R137	1-216-109-00	METAL GLAZE	330K 5% 1/10W
R066	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R138	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R067	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R141	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R068	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R142	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R069	1-247-863-91	CARBON	22K 5% 1/4W	R143	1-216-295-00	METAL GLAZE	0 5% 1/10W
R070	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R144	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W (KV-21M1K/21T1K/21T1R)
R071	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R145	1-216-206-00	METAL GLAZE	2.2K 5% 1/8W (KV-21M1K/21T1K/21T1R)
R072	1-216-230-00	METAL GLAZE	22K 5% 1/8W	R146	1-216-043-91	METAL GLAZE	560 5% 1/10W
R073	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R147	1-216-043-91	METAL GLAZE	560 5% 1/10W (KV-21M1K/21T1K/21T1R)
R074	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R148	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W (KV-21M1K/21T1K/21T1R)
R075	1-249-436-11	CARBON	39K 5% 1/4W	R149	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W (KV-21M1K/21T1K/21T1R)
R078	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R150	1-216-097-00	METAL GLAZE	100K 5% 1/10W (KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)
R079	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R151	1-216-097-00	METAL GLAZE	100K 5% 1/10W (KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)
R080	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R152	1-216-097-00	METAL GLAZE	100K 5% 1/10W (KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)
R081	1-249-438-11	CARBON	56K 5% 1/4W	R153	1-216-097-00	METAL GLAZE	100K 5% 1/10W (KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)
R088	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R154	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R089	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R155	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R090	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R156	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-21M1B/21T1B)
R091	1-249-427-11	CARBON	6.8K 5% 1/4W	R157	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-21M1B/21T1B)
R093	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R158	1-216-039-00	METAL GLAZE	390 5% 1/10W (KV-21M1A/21T1A/21M1D/21T1D/21M1E/21T1E/ 21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)
R094	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R159	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R095	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R160	1-216-238-91	METAL GLAZE	47K 5% 1/8W
R096	1-216-033-00	METAL GLAZE	220 5% 1/10W	R161	1-216-295-00	METAL GLAZE	0 5% 1/10W (KV-21M1A/21T1A/21M1D/21T1D/21M1E/21T1E/ 21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)
R097	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R162	1-216-017-91	METAL GLAZE	47 5% 1/10W (KV-21M1B/21T1B)
R098	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R163	1-249-407-11	CARBON	150 5% 1/4W
R099	1-216-200-11	METAL GLAZE	1.2K 5% 1/8W	R164	1-216-246-00	METAL GLAZE	100K 5% 1/8W
R102	1-216-234-00	METAL GLAZE	33K 5% 1/8W	R165	1-249-407-11	CARBON	150 5% 1/4W
R104	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W (KV-21M1B/21T1B)	R166	1-216-017-91	METAL GLAZE	100K 5% 1/8W
R105	1-216-025-00	METAL GLAZE	100 5% 1/10W (KV-21M1B/21T1B)	R167	1-216-031-00	METAL GLAZE	180 5% 1/10W
R106	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W (KV-21M1B/21T1B)	R168	1-216-017-91	METAL GLAZE	47 5% 1/10W (KV-21M1B/21T1B)
R107	1-216-017-91	METAL GLAZE	47 5% 1/10W (KV-21M1B/21T1B)	R169	1-216-031-00	METAL GLAZE	180 5% 1/10W (KV-21M1B/21T1B)
R108	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R170	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R109	1-216-025-00	METAL GLAZE	100 5% 1/10W (KV-21M1B/21T1B)	R171	1-216-238-91	METAL GLAZE	47K 5% 1/8W
R110	1-216-101-00	METAL GLAZE	150K 5% 1/10W	R172	1-216-295-00	METAL GLAZE	0 5% 1/10W (KV-21M1A/21T1A/21M1D/21T1D/21M1E/21T1E/ 21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)
R111	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R173	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R112	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W (KV-21M1B/21T1B)	R174	1-216-238-91	METAL GLAZE	47K 5% 1/8W
R113	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W (KV-21M1B/21T1B)	R175	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R114	1-216-073-00	METAL GLAZE	10K 5% 1/10W (KV-21M1B/21T1B)	R176	1-216-031-00	METAL GLAZE	180 5% 1/10W (KV-21M1B/21T1B)

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The components identified by shading and marked ! are critical for safety.
Replace only with the part number specified.

Les composants identifiés par une trame et une marque ! sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R169	1-216-073-00	METAL GLAZE	10K 5% 1/10W (KV-21M1B/21T1B)	R349	1-216-105-91	METAL GLAZE	220K 5% 1/10W (KV-21M1B/21T1B)
R170	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W (KV-21M1B/21T1B)	R350	1-216-033-00	METAL GLAZE	220 5% 1/10W (KV-21M1B/21T1B)
R171	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W (KV-21M1B/21T1B)	R351	1-216-292-11	METAL GLAZE	8.2M 5% 1/8W (KV-21M1B/21T1B/21M1D/21T1D/21M1K/21T1K/ 21T1R)
R175	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R352	1-216-262-00	METAL GLAZE	470K 5% 1/8W
R176	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R353	1-247-804-11	CARBON	75 5% 1/4W
R177	1-216-295-00	METAL GLAZE	0 5% 1/10W	R354	1-216-025-00	METAL GLAZE	100 5% 1/10W
R178	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	R355	1-216-121-91	METAL GLAZE	1M 5% 1/10W
R179	1-216-212-00	METAL GLAZE	3.9K 5% 1/8W	R356	1-216-119-00	METAL GLAZE	820K 5% 1/10W
R180	1-216-049-00	METAL GLAZE	1K 5% 1/10W (KV-21M1B/21T1B)	R357	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R181	1-216-182-00	METAL GLAZE	220 5% 1/8W	R358	1-216-009-00	METAL GLAZE	22 5% 1/10W
R182	1-216-182-00	METAL GLAZE	220 5% 1/8W	R359	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R205	1-247-741-11	CARBON	150 5% 1/2W	R361	1-216-023-00	METAL GLAZE	82 5% 1/10W
R301	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R362	1-216-023-00	METAL GLAZE	82 5% 1/10W
R302	1-216-037-00	METAL GLAZE	330 5% 1/10W	R363	1-216-023-00	METAL GLAZE	82 5% 1/10W
R303	1-216-090-00	METAL GLAZE	51K 5% 1/10W	R401	1-216-041-00	METAL GLAZE	470 5% 1/10W
R304	1-216-025-00	METAL GLAZE	100 5% 1/10W	R402	1-249-431-11	CARBON	15K 5% 1/4W
R305	1-216-025-00	METAL GLAZE	100 5% 1/10W	R403	1-249-431-11	CARBON	15K 5% 1/4W
R306	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R405	1-249-389-11	CARBON	4.7 5% 1/4W F
R307	1-216-121-91	METAL GLAZE	1M 5% 1/10W	R406	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R308	1-216-234-00	METAL GLAZE	33K 5% 1/8W	R407	1-216-041-00	METAL GLAZE	470 5% 1/10W
R309	1-216-121-91	METAL GLAZE	1M 5% 1/10W	R408	1-216-033-00	METAL GLAZE	220 5% 1/10W
R310	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R409	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R311	1-216-093-00	METAL GLAZE	68K 5% 1/10W	R410	1-247-804-11	METAL GLAZE	75 5% 1/4W (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E/21M1K/21T1K/21T1R)
R312	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R411	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R313	1-216-045-00	METAL GLAZE	680 5% 1/10W	R412	1-216-105-91	METAL GLAZE	220K 5% 1/10W
R314	1-216-045-00	METAL GLAZE	680 5% 1/10W	R413	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R315	1-216-045-00	METAL GLAZE	680 5% 1/10W	R414	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R316	1-216-033-00	METAL GLAZE	220 5% 1/10W	R415	1-216-222-00	METAL GLAZE	10K 5% 1/8W
R317	1-216-182-00	METAL GLAZE	220 5% 1/8W	R416	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R318	1-216-019-00	METAL GLAZE	56 5% 1/10W	R417	1-216-295-00	METAL GLAZE	0 5% 1/10W
R322	1-216-022-00	METAL GLAZE	75 5% 1/10W	R501	1-208-806-11	METAL CHIP	10K 0.50% 1/10W
R323	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R502	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
R325	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R503	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R326	1-216-095-00	METAL GLAZE	82K 5% 1/10W (KV-21M1B/21T1B/21M1D/21T1D/21M1K/21T1K/ 21T1R)	R504	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R327	1-216-097-00	METAL GLAZE	100K 5% 1/10W (KV-21M1B/21T1B/21M1D/21T1D/21M1K/21T1K/ 21T1R)	R505	1-216-075-00	METAL GLAZE	12K 5% 1/10W
R328	1-216-258-00	METAL GLAZE	330K 5% 1/8W	R506	1-216-080-00	METAL GLAZE	20K 5% 1/10W
R330	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R507	1-216-350-11	METAL OXIDE	1.2 5% 1W F
R333	1-216-037-00	METAL GLAZE	330 5% 1/10W	R508	1-215-865-11	METAL OXIDE	220 5% 1W F
R334	1-216-025-71	METAL GLAZE	100 5% 1/10W	R509	1-249-387-11	CARBON	3.3 5% 1/4W F
R335	1-216-295-00	METAL GLAZE	0 5% 1/10W	R600	1-216-365-00	METAL OXIDE	0.47 5% 2W F
R336	1-216-296-00	METAL GLAZE	0 5% 1/8W	R601	1-205-909-11	WIREWOUND	3.3 5% 10W
R337	1-216-295-00	METAL GLAZE	0 5% 1/10W	R603	1-215-858-11	METAL OXIDE	15 5% 1W F
R339	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R604	1-215-927-00	METAL OXIDE	47K 5% 3W F
R340	1-216-121-91	METAL GLAZE	1M 5% 1/10W	R606	1-249-441-11	CARBON	100K 5% 1/4W
R341	1-216-093-00	METAL GLAZE	68K 5% 1/10W	R607	1-216-366-00	METAL OXIDE	0.56 5% 2W F
R342	1-216-186-00	METAL GLAZE	330 5% 1/8W	R608	1-216-645-11	METAL CHIP	560 0.50% 1/10W
R343	1-216-295-00	METAL GLAZE	0 5% 1/10W	R609	1-215-859-00	METAL OXIDE	22 5% 1W F
R344	1-216-295-00	METAL GLAZE	0 5% 1/10W	R610	1-249-419-11	CARBON	1.5K 5% 1/4W
R345	1-216-238-91	METAL GLAZE	47K 5% 1/8W	R611	1-215-430-00	METAL	2.4K 1% 1/4W
R347	1-216-041-00	METAL GLAZE	470 5% 1/10W (KV-21M1B/21T1B)	R612	1-202-719-91	SOLID	1M 10% 1/2W
R348	1-216-073-00	METAL GLAZE	10K 5% 1/10W (KV-21M1B/21T1B)	R614	1-218-265-21	METAL	8.2M 5% 1W
				R615	1-217-418-61	FUSIBLE	0.47 10% 1/2W F

A C

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R617	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W			< THERMISTOR >	
R618	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W	THP601	1-808-509-31	THERMISTOR (POSITIVE)	
R620	1-215-479-00	METAL	270K 1% 1/4W			< TUNER >	
R621	1-249-429-11	CARBON	10K 5% 1/4W	TU101	8-598-331-00	TUNER (BT-AC401) (KV-21M1A/21T1A/21M1E/21T1E/21M1K/21T1K)	
R622	1-247-895-91	METAL GLAZE	470K 5% 1/4W		1-693-310-11	TUNER (TELE4-002B) (KV-21M1B/21T1B/21M1D/21T1D/21T1R)	
R623	1-216-081-00	METAL GLAZE	22K 5% 1/10W		1-693-302-11	TUNER (UV1315) (KV-21M1L/21T1L)	
R624	1-216-033-00	METAL GLAZE	220 5% 1/10W		8-598-333-00	TUNER (BT-AU601) (KV-21M1U/21T1U)	
R625	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R626	1-216-089-00	METAL GLAZE	47K 5% 1/10W				
R627	1-216-346-00	METAL OXIDE	0.56 5% 1W F				
R630	1-249-401-11	CARBON	47 5% 1/4W				
R800	1-215-887-00	METAL OXIDE	150 5% 2W F			< CRYSTAL >	
R801	1-247-891-00	CARBON	330K 5% 1/4W	X001	1-578-774-11	VIBRATOR, CRYSTAL	
R802	1-247-807-31	CARBON	100 5% 1/4W	X301	1-760-907-21	VIBRATOR, CRYSTAL (KV-21M1K/21T1K/21T1R)	
R803	1-216-081-00	METAL GLAZE	22K 5% 1/10W	X302	1-760-710-21	VIBRATOR, CRYSTAL	
R804	1-217-778-11	FUSIBLE	1K 5% 1W F			*****	
R806	1-216-349-00	METAL OXIDE	1 5% 1W F			*A-1638-074-A C BOARD, COMPLETE	*****
R807	1-249-399-11	METAL GLAZE	33 5% 1/10W				
R808	1-202-833-11	SOLID	18K 10% 1/2W				
R810	1-247-895-91	CARBON	470K 5% 1/4W				
R811	1-215-890-11	METAL OXIDE	470 5% 2W F				
R812	1-215-869-11	METAL OXIDE	1K 5% 1W F	C701	1-102-074-00	CERAMIC 0.001MF 10% 50V	
R813	1-216-266-00	METAL GLAZE	680K 5% 1/8W	C702	1-102-117-00	CERAMIC CHIP 820PF 10% 50V	
R814	1-249-443-11	CARBON	0.47 5% 1/4W F	C703	1-102-117-00	CERAMIC CHIP 820PF 10% 50V	
R815	1-216-250-00	METAL GLAZE	150K 5% 1/8W	C704	1-102-824-00	CERAMIC CHIP 470PF 5% 50V	
R816	1-216-369-00	METAL OXIDE	1 5% 2W F	C705	1-102-824-00	CERAMIC CHIP 470PF 5% 50V	
R817	1-216-447-00	METAL OXIDE	27 5% 2W F	C706	1-102-824-00	CERAMIC CHIP 470PF 5% 50V	
R818	1-202-813-00	SOLID	22K 10% 1/2W	C707	1-107-651-11	ELECT 4.7MF 20% 250V	
R819	1-249-441-11	CARBON	100K 5% 1/4W	C709	1-162-114-00	CERAMIC 0.0047MF 2KV	
R820	1-249-935-11	CARBON	3.3K 5% 1/4W	C710	1-126-967-11	ELECT 47MF 20% 16V	
R821	1-216-295-00	METAL GLAZE	0 5% 1/10W	C711	1-101-880-00	CERAMIC 47PF 5% 50V	
R822	1-216-107-00	METAL GLAZE	270K 5% 1/10W	C712	1-101-880-00	CERAMIC 47PF 5% 50V	
R823	1-249-413-11	CARBON	470 5% 1/4W F	C713	1-101-880-00	CERAMIC 47PF 5% 50V	
R824	1-216-125-00	METAL GLAZE	1.5K 5% 1/10W			< CONNECTOR >	
R825	1-216-105-91	METAL GLAZE	220K 5% 1/10W				
R828	1-216-115-00	METAL GLAZE	560K 5% 1/10W				
R834	1-215-869-11	METAL OXIDE	1K 5% 1W F	CNC71	*1-568-881-51	PIN, CONNECTOR 6P	
R835	1-249-413-11	CARBON	470 5% 1/4W F	CNC72	*1-568-880-51	PIN, CONNECTOR 5P	
				CNC73	1-695-915-21	TAB (CONTACT)	
				CNC76	1-695-915-21	TAB (CONTACT)	
						< DIODE >	
RV102	1-241-765-11	RES, ADJ, METAL GLAZE 22K	(KV-21M1B/21T1B)	D701	8-719-991-33	DIODE 1SS133T-77	
RV801	1-241-630-11	RES, ADJ, CARBON 10K		D702	8-719-991-33	DIODE 1SS133T-77	
				D703	8-719-991-33	DIODE 1SS133T-77	
				D704	8-719-991-33	DIODE 1SS133T-77	
				D705	8-719-991-33	DIODE 1SS133T-77	
S001	1-571-532-21	SWITCH, TACTIL		D706	8-719-991-33	DIODE 1SS133T-77	
S002	1-571-532-21	SWITCH, TACTIL		D707	8-719-991-33	DIODE 1SS133T-77	
S003	1-571-532-21	SWITCH, TACTIL		D708	8-719-991-33	DIODE 1SS133T-77	
S004	1-571-532-21	SWITCH, TACTIL		D709	8-719-991-33	DIODE 1SS133T-77	
S005	1-571-532-21	SWITCH, TACTIL		D716	8-719-991-33	DIODE 1SS133T-77	
S006	1-571-532-21	SWITCH, TACTIL					
S601	1-571-433-21	SWITCH, PUSH (AC POWER)		D717	8-719-054-81	DIODE 1SS292	
				D718	8-719-991-33	DIODE 1SS133T-77	
				D719	8-719-054-81	DIODE 1SS292	
				D723	8-719-991-33	DIODE 1SS133T-77	
				D724	8-719-054-81	DIODE 1SS292	
						< CRT SOCKET >	
T601	1-427-962-11	TRANSFORMER, LINE FILTER		J701	1-526-990-21	SOCKET, CRT	
T602	1-429-207-11	TRANSFORMER, CONVERTER					
T801	1-437-090-31	HDT					
T802	1-453-199-11	TRANSFORMER ASSY, FLYBACK (NI-1741/U2E)					

C

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
< TRANSISTOR >							
Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE				MISCELLANEOUS	
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE				*****	
Q703	8-729-119-78	TRANSISTOR 2SC2785-HFE				1-406-828-11 COIL, DEGAUSSING	
Q704	8-729-906-70	TRANSISTOR BF871-127				1-452-032-00 MAGNET, DISC; 10MM Ø	
Q705	8-729-906-70	TRANSISTOR BF871-127				1-452-094-00 MAGNET, ROTATABLE DISK; 15MM Ø	
Q706	8-729-906-70	TRANSISTOR BF871-127				1-452-277-00 MAGNET, BMC	
Q707	8-729-200-17	TRANSISTOR 2SA1091-0				1-453-169-11 TRANSFORMER ASSY, FLYBACK (UX-1604A2)	
Q708	8-729-200-17	TRANSISTOR 2SA1091-0				1-503-258-21 SPEAKER (KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E/21M1L/21T1L/21M1U/21T1U)	
Q709	8-729-200-17	TRANSISTOR 2SA1091-0				1-504-899-11 SPEAKER (9X5CM) (KV-21M1K/21T1K/21T1R)	
< RESISTOR >							
R700	1-260-087-81	CARBON	100 5%	1/2W		1-571-433-21 SWITCH, PUSH (AC POWER)	
R701	1-249-417-11	CARBON	1K 5%	1/4W		1-690-270-21 CORD, POWER (WITH CONNECTOR) 2.5A/250V	
R702	1-249-417-11	CARBON	1K 5%	1/4W		(KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E/21M1L/21T1L/21M1U/21T1U)	
R705	1-247-791-91	CARBON	22 5%	1/4W		1-590-762-11 CORD, POWER (WITH PLUG) 2.5A/250V (KV-21M1L/21T1L/21M1U/21T1U)	
R706	1-247-791-91	CARBON	22 5%	1/4W		8-598-331-00 TUNER (BT-AC401) (KV-21M1A/21T1A/21M1E/21T1E/21M1K/21T1K)	
R707	1-247-791-91	CARBON	22 5%	1/4W		1-693-310-11 TUNER (TELE4-002B) (KV-21M1B/21T1B/21M1D/21T1D/21T1R)	
R708	1-247-815-91	CARBON	220 5%	1/4W		1-693-302-11 TUNER (UV1315) (KV-21M1L/21T1L)	
R709	1-247-815-91	CARBON	220 5%	1/4W		8-598-333-00 TUNER (BT-AU601) (KV-21M1U/21T1U)	
R710	1-247-815-91	CARBON	220 5%	1/4W			
R711	1-249-417-11	CARBON	1K 5%	1/4W			
R714	1-249-417-11	CARBON	1K 5%	1/4W			
R715	1-249-417-11	CARBON	1K 5%	1/4W			
R716	1-249-417-11	CARBON	1K 5%	1/4W			
R717	1-247-758-11	CARBON	3.3K 5%	1/2W			
R718	1-247-758-11	CARBON	3.3K 5%	1/2W			
R719	1-247-758-11	CARBON	3.3K 5%	1/2W			
R720	1-216-487-11	METAL OXIDE	12K 5%	3W F			
R721	1-216-487-11	METAL OXIDE	12K 5%	3W F			
R722	1-216-487-11	METAL OXIDE	12K 5%	3W F			
R724	1-202-814-91	SOLID	33K 10%	1/2W			
R725	1-202-846-00	SOLID	470K 10%	1/2W			
R726	1-202-844-00	SOLID	330K 10%	1/2W			
R727	1-202-848-00	SOLID	680K 10%	1/2W			
R729	1-216-348-00	METAL OXIDE	0.82 5%	1W F			
R734	1-247-815-91	CARBON	220 5%	1/4W			
R735	1-247-815-91	CARBON	220 5%	1/4W			
R736	1-247-815-91	CARBON	220 5%	1/4W			
R744	1-247-756-11	CARBON	2.2K 5%	1/2W			
R745	1-247-756-11	CARBON	2.2K 5%	1/2W			
R746	1-247-756-11	CARBON	2.2K 5%	1/2W			
< VARIABLE RESISTOR >							
RV701	1-230-641-11	RES, ADJ, METAL GLAZE	2.2M				
RV702	1-241-656-21	RES, ADJ, METAL GLAZE	110M				

<u>REF.NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>	<u>REF.NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>
ACCESSORIES AND PACKING MATERIALS *****							
	1-770-783-11	CONNECTOR, CONVERSION	(KV-21M1K/21T1K/21T1R)				
	4-203-438-41	MANUAL, INSTRUCTION	(KV-21M1A/21T1A) (ITALIAN)				
	4-203-438-51	MANUAL, INSTRUCTION	(KV-21M1B/21T1B) (FRENCH/ITALIAN/GERMAN/DUTCH)				
	4-203-438-11	MANUAL, INSTRUCTION	(KV-21M1D/21T1D) (ENGLISH/DANISH/SWEDISH/FINNISH/ GREEK/DUTCH/TURKISH/NORWEGIAN)				
	4-203-439-11	MANUAL, INSTRUCTION	(KV-21M1D/21T1D) (GERMAN/ENGLISH)				
	4-203-438-71	MANUAL, INSTRUCTION	(KV-21M1E/21T1E) (SPANISH)				
	4-203-438-81	MANUAL, INSTRUCTION	(KV-21M1E/21T1E) (PORTUGUESE/SPANISH)				
	4-203-440-91	MANUAL, INSTRUCTION	(KV-21M1K/21T1K) (HUNGARIAN/POLISH/CZECH/ENGLISH/ RUSSIAN/BULGARIAN)				
	4-203-438-61	MANUAL, INSTRUCTION	(KV-21M1L/21T1L/21M1U/21T1U) (ENGLISH)				
	4-203-441-91	MANUAL, INSTRUCTION	(KV-21T1R) (RUSSIAN/BULGARIAN/ENGLISH)				
*4-042-477-01	BAG, PROTECTION	(KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E)					
*4-039-905-02	BAG, PROTECTION	(KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)					
*4-203-447-01	INDIVIDUAL CARTON	(KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E)					
*4-203-477-11	INDIVIDUAL CARTON	(KV-21M1K/21T1K/21M1L/21T1L/21T1R)					
*4-203-446-01	INDIVIDUAL CARTON	(KV-21M1U/21T1U)					
*4-203-444-01	CUSHION (LOWER) (ASSY)	(KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E)					
*4-203-444-11	CUSHION (LOWER) (ASSY)	(KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)					
*4-203-445-01	CUSHION (UPPER) (ASSY)	(KV-21M1A/21T1A/21M1B/21T1B/21M1D/21T1D/ 21M1E/21T1E)					
*4-203-445-11	CUSHION (UPPER) (ASSY)	(KV-21M1K/21T1K/21M1L/21T1L/21T1R/21M1U/ 21T1U)					
REMOTE COMMANDER *****							
	1-473-194-11	COMMANDER, STANDARD TYPE (RM-836)					
